

EXHIBIT 2

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

Afshin Zarinebaf, Zachary Chernik, and Joan Meyer, individually and on behalf of a class of similarly situated individuals,

Plaintiffs,

v.

Champion Petfoods USA, Inc. and
Champion Petfoods LP,

Defendants.

Case No. 1:18-cv-06951

Expert Report of Dominique M. Hanssens

March 29, 2021

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I. Qualifications

1. I am a Distinguished Research Professor of Marketing at the UCLA Anderson School of Management in Los Angeles, California, where I have served on the faculty since 1977. I received my Licentiate from the University of Antwerp in Applied Economics and received my M.S. and Ph.D. degrees in Management from Purdue University. At UCLA, I have taught a variety of marketing courses including Elements of Marketing, Marketing Strategy & Planning, and Customer Information Strategy. I have received awards for distinguished teaching in the MBA and Executive MBA programs, including the UCLA Anderson School's Neidorf "Decade" teaching award.

2. My research focuses on strategic marketing problems, to which I apply expertise in data-analytic methods, such as surveys, econometrics, and time-series analysis. My research includes analysis of how consumers respond to alternative information disclosures and the economic implications of those responses. One of my books, *Market Response Models: Econometric and Time Series Analysis*, is focused on the impact assessment of various marketing actions on firms' business performance. I have served as an area editor for *Marketing Science* and an associate editor for *Management Science* and the *Journal of Marketing Research*. My papers have appeared in the leading academic and professional journals in marketing, economics, and statistics. Five of these articles have won Best Paper awards, in *Marketing Science* (1995, 2001), *Journal of Marketing Research* (1999, 2007), and *Journal of Marketing* (2010), and ten were award finalists.

3. From 2005 to 2007, I served as the Executive Director of the Marketing Science Institute in Cambridge, Massachusetts. The American Marketing Association awarded me the Churchill Award (2007) and the Mahajan Award (2013) for Career Contributions to Marketing Research and Marketing Strategy, respectively. The INFORMS Society for Marketing Science elected me as a Fellow (2010) and awarded me the Buck Weaver Award (2015) for lifetime contributions to the theory and practice of marketing.

4. I have frequently consulted on marketing issues for companies in a variety of industries such as automobile, consumer products, technology, information services, and retail. These consulting assignments include the design and supervision of dozens of consumer surveys in a variety of sectors. I am also a founding partner of MarketShare, a global marketing analytics

firm headquartered in Los Angeles. A copy of my curriculum vitae, setting forth my professional experience and qualifications is attached as Appendix A.

5. I have served as an expert witness or offered consulting services in matters relating to factors impacting consumer behavior in a variety of product categories. Many of these matters involved assessing the economic impact of alleged false advertising and product misrepresentation by the manufacturer of the product at issue in consumer class actions. I have provided expert testimony and consulted on assessment of damages (including in the class action context) for a variety of products, and evaluated suitability of conjoint analysis and other marketing research techniques in determining alleged damages on a class-wide basis, among others. As part of my expert witness work, I also conducted consumer surveys in multiple matters. A list of my testimony in the past four years is attached as Appendix B.

II. Case Background, Plaintiffs' Allegations, and Plaintiffs' Expert Reports

6. Champion Petfoods USA Inc. and Champion Petfoods LP (collectively, "Champion") produce and sell a variety of dry foods, freeze-dried foods, and treats for dogs and cats under two brand names: ACANA and ORIJEN.¹

7. Plaintiffs Mr. Afshin Zarinebaf ("Mr. Zarinebaf"),² Mr. Zachary Chernik ("Mr. Chernik")³, and Ms. Joan Meyer ("Ms. Meyer")⁴ allege that the following phrases on the

¹ "Our Foods," *Champion Petfoods*, <https://championpetfoods.com/our-brands.html>.

² Mr. Zarinebaf purchased the following Champion products: ORIJEN Six Fish, ORIJEN Regional Red, ORIJEN Tundra, ACANA Singles Lamb and Apple, ACANA Singles Pork and Squash, ACANA Heritage Red Meat. See Third Amended Class Action Complaint, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 1:18-cv-06951, June 17, 2020 ("Third Amended Complaint"), ¶ 9; Deposition of Afshin Zarinebaf, November 23, 2020 ("Zarinebaf Deposition"), pp. 72:19–73:12.

³ Mr. Chernik purchased the following Champion products: ORIJEN Six Fish, ORIJEN Adult, ORIJEN Regional Red, ORIJEN Senior, ACANA Heritage Free Run Poultry, ACANA Heritage Meats, ACANA Regionals Wild Atlantic, ACANA Regionals Grasslands, ACANA Regionals Wild Prairie, ACANA Regionals Ranchlands, ACANA Regionals Pacifica, ACANA Singles Lamb and Apple, ACANA Singles Pork and Squash, and ACANA Singles Duck and Pear. See Third Amended Complaint, ¶ 7; Deposition of Zachary Chernik, December 8, 2020 ("Chernik Deposition"), pp. 98:25–101:6.

⁴ Ms. Meyer purchased the following Champion products: ORIJEN Six Fish, ORIJEN Adult, ACANA Pacifica, ACANA Singles Lamb and Apple, ACANA Singles Duck and Pear, ACANA Singles Wild Mackerel, ACANA Heritage Meats, and ACANA Regionals Meadowland. See Third Amended Complaint, ¶ 9; Deposition of Joan Meyer, November 13, 2020, p. 53:12–23.

packages of select ACANA and ORIJEN branded dry dog food products (“At-Issue Products”⁵) are false or misleading (“Alleged Misrepresentations”):⁶

- “Biologically Appropriate,”
- “Fresh Regional Ingredients,”
- “Delivering Nutrients Naturally.”

8. Plaintiffs also allege that Champion omitted material information about the alleged presence of the following ingredients and contaminants in the At-Issue Products (“Alleged Omissions”):⁷

- Non-fresh ingredients,
- Non-regional ingredients,
- Heavy metals (*i.e.*, arsenic, cadmium, lead, and mercury),
- Bisphenol A (“BPA”),
- Pentobarbital.

9. Plaintiffs seek to certify a class of Illinois residents who purchased the At-Issue Products from July 1, 2014 to the present (“Proposed Class Members”),⁸ and claim that Proposed Class Members paid inflated prices for the At-Issue Products due to the Alleged Misrepresentations and Omissions.⁹ As I understand Plaintiffs’ theory of damages, Plaintiffs claim that, as a result of Champion’s Alleged Misrepresentations and Omissions, market prices of the At-Issue Products in the real world (“Actual World”) were higher than the prices Proposed Class Members would have paid in a counterfactual world (“But-For World”) in which Champion

⁵ According to Mr. Boedeker, the At-Issue Products include the following 11 Champion products: ACANA Free Run Poultry, ACANA Grasslands, ACANA Heritage Meats, ACANA Lamb and Apple, ACANA Pork and Squash, ACANA Meadowlands, ACANA Mackerel and Greens, ORIJEN Fish, ORIJEN Original, ORIJEN Regional Red, and ORIJEN Senior. *See* Expert Report of Stefan Boedeker, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 1:18-cv-06951, February 24, 2021 (“Boedeker Zarinebaf Report”), Table 1.

⁶ Third Amended Complaint, ¶¶ 2, 12, 52–54.

⁷ Third Amended Complaint, ¶¶ 2–3, 13, 55.

⁸ Third Amended Complaint, ¶ 213. The Third Amended Complaint also defines five subclasses based on which specific Champion products Proposed Class Members purchased: the Orijen Class, the Acana Singles Class, the Acana Regionals Class, the Acana Heritage Class, and the Red Meat Class. *See* Third Amended Complaint, ¶ 213.

⁹ Third Amended Complaint, ¶¶ 226–236, 240–247.

disclosed the Alleged Omissions and removed the Alleged Misrepresentations from the products' packaging. I understand that Plaintiffs claim they are entitled to recover as damages the amount of this alleged overpayment (*i.e.*, difference in market prices between the Actual World and the But-For World at the time of purchase).

10. Mr. Stefan Boedeker ("Mr. Boedeker") submitted an expert report on behalf of Plaintiffs in this matter on February 24, 2021.¹⁰ For his report, Mr. Boedeker designed and conducted a total of four conjoint surveys ("Mr. Boedeker's Conjoint Surveys") using a nationwide sample: two conjoint surveys related to the Alleged Misrepresentations (one survey for ACANA and one survey for ORIJEN), and two additional conjoint surveys related to the Alleged Omissions (one survey for ACANA and one survey for ORIJEN).¹¹

11. In the two surveys related to the Alleged Misrepresentations ("Misrepresentations Surveys"), Mr. Boedeker asked respondents to assume they were purchasing a Champion product and then to indicate their preference between two sets of marketing labels that could appear on the packaging at the specified price levels.¹² These marketing labels were presented as images that were intended to resemble the Alleged Misrepresentations found on the At-Issue Products.¹³ In the two surveys related to the Alleged Omissions ("Omissions Surveys"), Mr. Boedeker asked respondents to assume that they were purchasing their "favorite dry dog food" and then to indicate their preference between two sets of warning labels that could appear on the packaging at the specified price levels.¹⁴ These warning labels were intended to describe the possible presence of the ingredients and contaminants related to the Alleged Omissions.¹⁵

12. Using the data from the Misrepresentations Surveys, Mr. Boedeker conducted a regression analysis which he claims estimates demand curves for the dog food products with and without the marketing labels associated with the Alleged Misrepresentations.¹⁶ Similarly, using data from the Omissions Surveys, Mr. Boedeker conducted a regression analysis which he claims

¹⁰ Boedeker Zarinebaf Report.

¹¹ Boedeker Zarinebaf Report, ¶¶ 102, 108.

¹² Boedeker Zarinebaf Report, Figures 5, 7.

¹³ Boedeker Zarinebaf Report, ¶¶ 131, 135.

¹⁴ Boedeker Zarinebaf Report, Appendix 1, pp. 63, 136.

¹⁵ Boedeker Zarinebaf Report, ¶¶ 121–122, Table 7.

¹⁶ Boedeker Zarinebaf Report, ¶ 166.

estimates demand curves for dog food products with and without the warning labels associated with the Alleged Omissions.¹⁷ Mr. Boedeker claims that the difference between the “demand curves” with and without these labels represents the economic loss associated with the corresponding Alleged Misrepresentations or Alleged Omissions.¹⁸

13. Mr. Boedeker’s estimated economic loss stemming from the Alleged Misrepresentations ranges from 10 to 32 percent of the purchase price, depending on the brand and the particular Alleged Misrepresentation or combination of Alleged Misrepresentations.¹⁹ His estimated economic loss stemming from the Alleged Omissions ranges from 10 to 85 percent of the purchase price, depending on the brand and the particular Alleged Omission or combination of Alleged Omissions.²⁰ Mr. Boedeker’s proposed method for calculating class-wide damages was to sum his estimates for the Alleged Misrepresentations and his estimates for the Alleged Omissions. Based on this approach, Mr. Boedeker estimated total class-wide damages that amounted to 104 percent of his estimate for total sales of the At-Issue Products in Illinois.²¹

14. Mr. Boedeker also designed and conducted a survey purportedly to assess consumer perceptions of the Alleged Misrepresentations and Omissions and to determine the degree to which they were material to consumers’ purchase decisions (“Expectation Survey”).²² As in his Conjoint Surveys, Mr. Boedeker’s Expectation Survey used a nationwide sample of U.S. adults.²³ In his Expectation Survey, Mr. Boedeker showed respondents an image of either an ACANA or ORIJEN dog food bag and then presented them with a series of statements related to the Alleged Misrepresentations and Omissions and asked them to indicate the extent to which they agreed or

¹⁷ Boedeker Zarinebaf Report, ¶ 166.

¹⁸ Boedeker Zarinebaf Report, ¶¶ 87–88.

¹⁹ Boedeker Zarinebaf Report, Appendix 4.

²⁰ Boedeker Zarinebaf Report, Appendix 4.

²¹ Mr. Boedeker applied his economic loss percentages to the revenue from ACANA and ORIJEN products sold in Illinois during the class period. Based on these calculations, Mr. Boedeker estimated median damages for the Alleged Misrepresentations on ACANA products of \$1,627,688; median damages for the Alleged Misrepresentations on ORIJEN products of \$2,003,098; median damages for the Alleged Omissions on ACANA products of \$4,280,703; median damages for the Alleged Omissions on ORIJEN products of \$5,851,978; and median total damages for the Alleged Misrepresentations and Omissions on ACANA and ORIJEN products of \$13,763,467. It is worth noting that Mr. Boedeker’s median total damages estimate *exceeds* Champion’s total sales in Illinois by almost \$500,000. *See* Boedeker Zarinebaf Report, Table 16.

²² Boedeker Zarinebaf Report, ¶ 173.

²³ Boedeker Zarinebaf Report, ¶ 175.

disagreed with the statement.²⁴ Based on the results of his Expectation Survey, Mr. Boedeker concluded that “a significant portion of consumers interpret the Products’ packaging to be misleading” and claimed that results of this survey “show the impact of misrepresentations and omissions on the purchase intention of the dog food consumers.”²⁵

15. In addition to Mr. Boedeker’s Report, Mr. Bruce G. Silverman (“Mr. Silverman”) also submitted an expert report on behalf of Plaintiffs in this matter on February 24, 2021.²⁶ Basing his opinions predominantly on his experience as an advertising industry practitioner, and not on any empirical research conducted specific to this case, Mr. Silverman opined on consumer perceptions regarding the Alleged Misrepresentations and Omissions and on whether the Alleged Misrepresentations and Omissions were material to consumers’ purchase decisions.²⁷

III. Assignment and Materials Relied Upon

16. I have been asked by counsel for Champion to evaluate Mr. Boedeker’s conjoint study and his findings, and to determine whether Mr. Boedeker’s conjoint study can be used to assess consumer preferences for the At-Issue Products and to reliably calculate damages on a class-wide basis in this matter. I have also been asked to assess the reliability of Mr. Boedeker’s Expectation Survey and the validity of its results. In addition, I have been asked by counsel for Champion to review and respond to Mr. Silverman’s opinions on consumers’ perceptions of the Alleged Misrepresentations and Omissions and the impact of the Alleged Misrepresentations and Omissions on consumers’ purchase decisions.

17. My review and evaluation are informed by my education and academic work in the field of marketing, including research on consumer behavior, consumer preferences, and consumer purchase decision making. In undertaking this assignment, I utilized my expertise in assessing consumers’ evaluation of product attributes through survey research methods such as conjoint analysis. In reaching my conclusions, I have reviewed the complaint, named plaintiff depositions, the expert report of Stefan Boedeker (including reports that Mr. Boedeker submitted on the same date in two other related matters), the deposition of Mr. Boedeker (for this matter

²⁴ Boedeker Zarinebaf Report, Appendix 1.

²⁵ Boedeker Zarinebaf Report, ¶¶ 179–180.

²⁶ Expert Report of Bruce G. Silverman, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 1:18-cv-06951, February 24, 2021 (“Silverman Zarinebaf Report”).

²⁷ Silverman Zarinebaf Report, ¶ 5.

and in a prior related matter), the expert report of Bruce G. Silverman (including reports that Mr. Silverman submitted on the same date in two other related matters), the deposition of Mr. Silverman (for this matter and in a prior related matter), the expert report of Robert H. Poppenga (including reports that Mr. Poppenga submitted on the same date in two other related matters), academic and practitioner literature, and public press, among other documents. A list of the materials I have relied upon in forming my opinions is attached as Appendix C.

18. I am being compensated at my standard billing rate of \$900 per hour. I have been assisted in this matter by staff of Cornerstone Research, who worked under my direction. I receive compensation from Cornerstone Research based on its collected staff billings for its support of me in this matter. Neither my compensation in this matter nor my compensation from Cornerstone Research is in any way contingent or based on the content of my opinion or the outcome of this or any other matter.

19. My work is ongoing, and I reserve the right to supplement my report and modify my opinions as I review additional data and information.

IV. Summary of Opinions

20. Plaintiffs' theory of damages requires estimating price premiums associated with the Alleged Misrepresentations and Omissions for the At-Issue Products. Mr. Boedeker's economic loss estimates are untethered to Plaintiffs' theory of damages because:

- a. Mr. Boedeker's economic loss measures for both the Alleged Misrepresentations and the Alleged Omissions are, at best, measures of willingness to pay (which requires properly estimating product demand) and not measures of market prices (which requires properly estimating product demand *and* accounting for supply-side factors), and
- b. Mr. Boedeker's economic loss measures for the Alleged Omissions are based on preferences solicited from surveys about irrelevant products (*i.e.*, respondents' "favorite dry dog food" products) that do not feature a single mention or image of the ORIJEN or ACANA products that are at issue in this case.

21. Mr. Boedeker's economic loss estimates are also unreliable and unscientific. First, Mr. Boedeker's intended goal was to generate these estimates based on changes in demand for At-Issue Products, but he failed at his task. The vast majority of Mr. Boedeker's respondents (87

percent) neither purchased nor considered purchasing ACANA or ORIJEN in the last 3 years. Thus, he attempts to extrapolate from individuals who did not purchase or even consider purchasing Champion products to individuals who actually purchased the products (including those who purchased the products repeatedly for years with no claimed harm to their dogs). The data collected from Mr. Boedeker's Conjoint Surveys therefore cannot be used to reliably estimate the demand for At-Issue Products.

22. Second, Mr. Boedeker's economic loss estimates rely on data generated by fundamentally flawed conjoint survey instruments and data that are susceptible to multiple biases. In particular:

- a. The products used in the choice tasks in Mr. Boedeker's Misrepresentations and Omissions Surveys, as well as the choice tasks themselves, were unrealistic and did not resemble any choices that consumers would face in the real world. In the real world, consumers do not evaluate which labels they would prefer on a product (and definitely not on a product that they are told to assume they are buying) or make product choices based only on a subset of claims on that product's packaging. Rather, they evaluate dog food products based on product characteristics (*e.g.*, ingredients, brand, protein content, or flavor) and personal circumstances (*e.g.*, income, or their dog's age, breed, or preferences), as well as recommendations from veterinarians and their own individual past experiences with a specific product or products from a specific manufacturer. The importance of these experiences cannot be overstated, and Mr. Boedeker's survey respondents contained so few persons who had experience with Champion products that any results he obtained cannot reliably be extrapolated to Proposed Class Members. Indeed, respondents' comments indicated that they were confused by Dr. Boedeker's choice tasks and lacked sufficient context to evaluate the options presented in the survey.
- b. Mr. Boedeker's product label evaluation exercise for the respondents in his Omissions Surveys was particularly problematic because the label evaluation exercise did not reference the At-Issue Products at all (but instead referenced respondents' "favorite dry dog food") and used vague language that provided the

negative (and potentially alarming) information about the product (that Plaintiffs' counsel provided) without sufficient context. Thus, Mr. Boedeker's Omissions Surveys essentially asked respondents to "choose" between two bags of contaminants that are available at different price levels. This bears no resemblance to purchase decisions in the real world for any dog food product, and the results certainly bear no connection to the At-Issue Products. Indeed, in the majority of the choice tasks in the Omissions Surveys (61 percent), respondents indicated that they would not purchase the product they indicated they preferred. This exposes the underlying methodological flaws in his survey design, and thus renders any conclusions based on his survey meaningless.

23. Third, Mr. Boedeker's reported median economic losses rely on a series of so-called "market simulations" that purport to analyze changes in demand—and *only* changes in demand—for hypothetical bundles of labels that bear no resemblance to the At-Issue Products in the Actual or the But-For World. Thus, Mr. Boedeker's reported median economic losses are not measures of market price premiums, which require a consideration of supply factors, and cannot be reliably attributed to the Alleged Misrepresentations or Omissions, which are specific to the At-Issue Products. Considered separately, Mr. Boedeker's damages estimates from his Misrepresentations Surveys and Omissions Surveys lack face validity and are internally inconsistent. For example, Mr. Boedeker's estimates imply that correcting for the Alleged Omissions, Champion would have sold a 25-pound bag of ACANA dog food in the But-For World for \$10.24, a price that is substantially below even the cheapest available dog foods on the market. If one were to add together Mr. Boedeker's estimated economic losses for the Alleged Misrepresentations and Omissions, the results are even more absurd, in some instances leading to estimated economic losses that exceed the prices of the At-Issue Products. Put another way, Mr. Boedeker concluded that Champion's dog foods not only have zero value, but Champion would have to pay consumers to take the products off its hands. Yet, Mr. Boedeker also concluded that Champion would have continued to manufacture its products at the same output levels. These conclusions are both unreasonable for reasons set forth below, and underscore the fundamental unreliability of Mr. Boedeker's methodology. Given that Proposed Class Members received dog

food and presumably fed it to their dogs (without alleged harm to the dogs, I understand), Mr. Boedeker's de facto full-refund model is inappropriate.

24. Finally, Mr. Boedeker's Expectation Survey is fundamentally flawed and unable to provide reliable information about consumer perceptions or consumer purchase intentions for the At-Issue Products. In particular:

- a. As in the case of Mr. Boedeker's Conjoint Surveys, the vast majority of respondents in Mr. Boedeker's Expectation Survey (89 percent) neither purchased nor considered purchasing ACANA or ORIJEN. The data collected from Mr. Boedeker's Expectation Survey therefore cannot be extrapolated to buyers of the At-Issue Products.
- b. Even though his Expectation Survey was purportedly designed to test a causal proposition, Mr. Boedeker failed to include a control group in his Expectation Survey. This is a fundamental design flaw that violates best practices from academic research, and makes it impossible to determine whether his results are due to the Alleged Misrepresentations and Omissions or due to respondents' pre-existing beliefs, other information they reviewed in the survey, or simply the result of poor survey design.
- c. Mr. Boedeker did not conduct a pre-test of his survey instrument despite the fact that academic research recommends conducting pre-tests, the fact that Mr. Boedeker discussed the importance of pre-tests in his own report, and the fact that Mr. Boedeker conducted pre-tests for his Conjoint Surveys.

25. Plaintiffs' other expert, Mr. Silverman, provided opinions on how Proposed Class Members perceived the Alleged Misrepresentations and Omissions, and whether these Alleged Misrepresentations and Omissions were material to their purchase decisions. Mr. Silverman reached these opinions without performing any empirical research on Champion purchasers or Proposed Class Members. Instead, Mr. Silverman offered his personal opinions based on his own review of Champion's packaging and his personal experiences as an advertising practitioner creating ad campaigns for a variety of products. This subjective approach lacks empirical basis and does not follow the scientific standards required for a rigorous study. In addition, Mr. Silverman failed to consider factors beyond the Alleged Misrepresentations and Omissions that

can influence consumer perceptions and purchase decisions, such as other information on the product packaging or information beyond the product packaging. Thus, Mr. Silverman's opinions are unreliable and amount to no more than unsubstantiated speculations and subjective responses that apply only to Mr. Silverman himself.

V. Overview of Mr. Boedeker's Conjoint Surveys

26. In his report, Mr. Boedeker stated that he was asked to "[a]scertain if it is possible to quantify economic losses to consumers, including Plaintiffs and the Class, attributable to the purchase of a product advertised with misrepresentations and omissions, and if so, to provide a framework for the computation of class-wide damages."²⁸ Based on this assignment, Mr. Boedeker designed and conducted four conjoint surveys—two for the Alleged Misrepresentations and two for the Alleged Omissions.

27. As mentioned above, Mr. Boedeker conducted two conjoint surveys, one for ORIJEN and one for ACANA, in his attempt to assess consumer preferences for the At-Issue Products with and without the Alleged Misrepresentations.²⁹ Mr. Boedeker began these surveys by instructing respondents to assume they were purchasing a 13-pound bag of ORIJEN Regional Red dry dog food (for the ORIJEN survey)³⁰ or a 25-pound bag of ACANA Regionals Meadowland dry dog food (for the ACANA survey).³¹ Mr. Boedeker then had respondents review images of the front and back packaging of these products, followed by close-up images of several labels on the product packaging, including the Alleged Misrepresentations.³² These labels made up the attribute levels in the conjoint survey. For the Misrepresentations Surveys, the labels that could appear in the choice tasks are shown in Figure 1 (with the labels that relate to the Alleged Misrepresentations shown above and the "decoy" labels shown below).³³

²⁸ Boedeker Zarinebaf Report, ¶ 12.

²⁹ Boedeker Zarinebaf Report, ¶ 102.

³⁰ Boedeker Zarinebaf Report, Appendix 1, p. 22.

³¹ Boedeker Zarinebaf Report, Appendix 1, p. 94.

³² Boedeker Zarinebaf Report, ¶¶ 129–134.

³³ Boedeker Zarinebaf Report, Tables 8, 9. The decoy labels used in the ACANA Misrepresentations Survey were "Wholeprey Diet" and "High Palatability." The decoy labels used in the ORIJEN Misrepresentations Survey were "Nourish as Nature Intended," "Wholeprey Diet," and "Low Temperature."

Figure 1
Labels Used in the ORIJEN and ACANA Misrepresentations Surveys

ORIJEN		ACANA	
Labels Related to the Alleged Misrepresentations	Biologically Appropriate	Biologically Appropriate	BIOLOGICALLY APPROPRIATE™ Our foods mirror the richness, freshness and variety of meals that dogs are evolved to eat.
	Ingredient Sourcing	Ingredient Sourcing	FRESH INGREDIENTS We focus on ingredients delivered to our kitchens fresh or raw each day.
			REGIONAL INGREDIENTS GROWN CLOSE TO HOME - We focus on local ingredients delivered to our kitchens fresh or raw each day.
			FRESH REGIONAL INGREDIENTS GROWN CLOSE TO HOME - We focus on local ingredients that are ethically raised by people we know and trust, and delivered to our kitchens each day.
	Nourish As Nature Intended	Delivering Nutrients Naturally	DELIVERING NUTRIENTS NATURALLY
	WholePrey Diet	WholePrey Diet	WHOLEPREY™ DIET POULTRY ORGANS CARTILAGE IN HER ETERNAL WISDOM, NATURE MATCHES THE NUTRIENTS FOUND IN WHOLE PREY ANIMALS TO PERFECTLY MEET THE NEEDS OF YOUR DOG.
"Decoy" Labels		High Palatability	HIGH PALATABILITY INFUSED WITH FREEZE-DRIED CHICKEN LIVER
	Low Temperature		LOW TEMPERATURE PREMIUM DRIED, RED MEAT AND FISH INGREDIENTS CONVENTIONAL MEAT MEALS ARE RENDERED AT HIGH TEMPERATURES FROM ANIMAL BY-PRODUCTS SUITABLE FOR HUMAN CONSUMPTION. ORIJEN features dried meats and fish prepared at 100°F from fresh ingredients deemed fit for human consumption - concentrating their goodness into a rich source of protein that cannot be supplied by fresh meats alone.

28. Mr. Boedeker then presented his respondents with choice tasks featuring two different sets of labels, each with a given price. In each choice task, respondents were asked to (i) choose which of the two sets of labels they would prefer given the prices shown, and (ii) indicate whether they would actually purchase a product with the labels and price they selected.³⁴ Each respondent completed 15 of these choice tasks.³⁵ An example choice task from the ORIJEN Misrepresentation Survey is shown in Figure 2 below.

³⁴ Boedeker Zarinebaf Report, Figures 5, 7.

³⁵ Boedeker Zarinebaf Report, ¶ 125.

Figure 2
Example Choice Task from Mr. Boedeker's ORIEN Misrepresentations Survey³⁶

This is scenario 1 of 15.

Please indicate which of the given options you would select. Hover your mouse over the (i) icon to see more information for each attribute. If a cell is BLANK, then no labels regarding the attribute are found on the dog food bag.

	Option 1	Option 2
Low Temperature (i)		
Nourish As Nature Intended (i)	NOURISH AS NATURE INTENDED	
Ingredient Sourcing (i)	FRESH INGREDIENTS	REGIONAL INGREDIENTS
WholePrey Diet (i)	WHOLEPREY DIET	WHOLEPREY DIET
Biologically Appropriate (i)	BIOLOGICALLY APPROPRIATE	BIOLOGICALLY APPROPRIATE
Price (i)	\$56.99	\$45.99
Which option would you prefer?	<input checked="" type="radio"/>	<input type="radio"/>

Would you purchase the option you selected above?

Yes

No

29. Using the data from the Misrepresentations Surveys, Mr. Boedeker estimated the utility or disutility (often referred to in conjoint analyses as “part-worths”) that respondents derived from each of the labels corresponding to the Alleged Misrepresentations. For each Alleged Misrepresentation label and every combination of the Alleged Misrepresentations labels (e.g., “Biologically Appropriate” and “Delivering Nutrients Naturally”), Mr. Boedeker then attempted to estimate demand curves for the products with the Alleged Misrepresentation label(s) on the product packaging and without the Alleged Misrepresentation label(s) on the product packaging.

³⁶ Boedeker Zarinebaf Report, Appendix 1, p. 36.

He used the difference between these two sets of demand curves as the economic loss associated with the corresponding Alleged Misrepresentation(s).³⁷

30. In addition, Mr. Boedeker designed and conducted two conjoint surveys, one for ORIJEN and one for ACANA, intended to assess consumer preferences for the At-Issue Products with and without the Alleged Omissions. In the Omissions Surveys, Mr. Boedeker asked respondents to assume they were purchasing a 25-pound bag of “[their] favorite dry dog food.”³⁸ Following this instruction, Mr. Boedeker asked respondents to review five labels which they were told could appear on the product packaging of their favorite dry dog food.³⁹ The set of labels that could appear on the product packaging are shown in Figure 3 below (including the labels that relate to the Alleged Omissions and the “decoy” label, “Artificial Preservatives”).⁴⁰ The text for the labels was given to Mr. Boedeker by counsel for Plaintiffs.⁴¹

Figure 3
Labels Used in the ORIJEN and ACANA Omissions Surveys

Labels Related to the Alleged Omissions	Expired Ingredients	May contain expired ingredients. Expired ingredients are ingredients that have passed their "shelf life" date.
	Heavy Metals	May contain measurable amounts of heavy metals such as lead, arsenic, mercury, and/or cadmium.
	BPA	May contain measureable amounts of BPA. BPA is a chemical compound used in plastic.
	Regrinds	May contain regrinds. Regrinds are previously made dry dog food that is ground and then used in another batch of dry dog food.
"Decoy" Label	Artificial Preservatives	May contain artifical preservatives. Artificial preservatives are added to food to fight spoilage caused by bacteria, molds, fungus, and yeast.

Source: Boedeker Report, Table 7

³⁷ Boedeker Zarinebaf Report, ¶¶ 163–169.

³⁸ Boedeker Zarinebaf Report, Appendix 1, pp. 65, 138.

³⁹ Boedeker Zarinebaf Report, ¶ 139.

⁴⁰ Mr. Boedeker did not include any labels that relate to the alleged presence of pentobarbital. Nor did he provide any damages estimates related to pentobarbital. In his report, Mr. Boedeker did not address why he excluded pentobarbital from his conjoint analysis and only considered the Alleged Omissions related to heavy metals, BPA, regrinds, and expired ingredients.

⁴¹ Boedeker Zarinebaf Report, ¶ 124.

31. As with the Misrepresentations Surveys, Mr. Boedeker then presented his respondents with choice tasks featuring two different sets of labels, each with a given price. Respondents were asked to choose which of the two sets of labels they would prefer given the prices shown, and to indicate whether they would actually purchase a product with the labels and price they selected.⁴² The only difference between the ACANA Omissions Survey and the ORIJEN Omissions Survey was the price levels used in the choice tasks.⁴³ As in the Misrepresentations Surveys, each respondent completed 15 of these choice tasks.⁴⁴ An example choice task from the ACANA Omissions Survey is shown in Figure 4 below.

32. For each Alleged Omission label and every combination of Alleged Omissions labels, Mr. Boedeker attempted to calculate the difference between demand curves for a dog food product with the related Alleged Omissions label(s) on the product packaging and without the related Alleged Omissions label(s) on the product packaging. He then used this difference as the economic loss associated with the corresponding Alleged Omission(s).⁴⁵

⁴² Boedeker Zarinebaf Report, ¶¶ 125–126.

⁴³ See Boedeker Zarinebaf Report, ¶¶ 137–140, Table 7, and Appendix 1, pp. 43–73, 116–146.

⁴⁴ Boedeker Zarinebaf Report, ¶ 125.

⁴⁵ Boedeker Zarinebaf Report, ¶¶ 163–169.

Figure 4
Example Choice Task from Mr. Boedeker's ACANA Omissions Survey⁴⁶

This is scenario 1 of 15.

Please indicate which of the given options you would select if a 25-pound bag of your favorite dog food had the following labels. If a cell is BLANK, then no labels regarding the attribute are found on your favorite dog food.

Option 1	Option 2
May contain expired ingredients . Expired ingredients are ingredients that have passed their "shelf life" date.	
	May contain artificial preservatives . Artificial preservatives are added to food to fight spoilage caused by bacteria, molds, fungus, and yeast.
May contain measurable amounts of heavy metals such as lead, arsenic, mercury, and/or cadmium.	
May contain measurable amounts of BPA . BPA is a chemical compound used in plastic.	May contain measurable amounts of BPA . BPA is a chemical compound used in plastic.
May contain regrinds . Regrinds are previously made dry dog food that is ground and then used in another batch of dry dog food.	May contain regrinds . Regrinds are previously made dry dog food that is ground and then used in another batch of dry dog food.
\$80.99	\$69.99
<input type="radio"/>	<input checked="" type="radio"/>

Would you purchase the option you select

Yes	No
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VI. Mr. Boedeker's Theoretical Framework for Economic Loss Does Not Estimate Market Prices and Is Unconnected to Plaintiffs' Price Premium Theory of Damages

A. Plaintiffs' Theory of Damages Requires Estimating the Difference, If Any, Between Market Prices in the Actual World and the But-For World

33. Plaintiffs claim that Proposed Class Members would not have paid a price premium for the At-Issue Products had they known the product packaging contained Alleged Misrepresentations and Omissions.⁴⁷ To measure this alleged price premium, Plaintiffs need to

⁴⁶ Boedeker Zarinebaf Report, Appendix 1, p. 66.

⁴⁷ Third Amended Complaint, ¶¶ 235–237.

estimate the difference between the market prices that Proposed Class Members already paid in the Actual World for the At-Issue Products and the market prices that would have prevailed in the But-For World in which the Alleged Misrepresentations and Omissions were corrected at the time of purchase.⁴⁸ The calculation of an alleged price premium that is consistent with Plaintiffs' theory of damages can be summarized as follows:

Price Premium (according to Plaintiffs' theory of damages)

= ***Actual Market Price*** (*i.e.*, with Alleged Misrepresentations and/or Omissions)

– ***But-For Market Price*** (*i.e.*, without Alleged Misrepresentations and/or Omissions)

34. Market prices are determined by both consumers' *willingness to pay* for a product (demand curve) and suppliers' *willingness to sell* that product at different prices (supply curve).⁴⁹ The market equilibrium price is the price at which the supply and demand curves intersect and the quantity demanded is equal to the quantity supplied.⁵⁰ In order to measure market prices and to calculate the price premium, Plaintiffs therefore need to account for any changes to both the

⁴⁸ Allen, M. A., R. E. Hall, and V. A. Lazear (2011), "Reference Guide on Estimation of Economic Damages," in *Reference Manual on Scientific Evidence*, Washington, D.C.: The National Academies Press, 425–502 at p. 432 ("The first step in a damages study is the translation of the legal theory of the harmful event into an analysis of the economic impact of that event. In most cases, the analysis considers the difference between the plaintiff's economic position if the harmful event had not occurred and the plaintiff's actual economic position. ... The characterization of the harmful event begins with a clear statement of what occurred. The characterization also will include a description of the defendant's proper actions in place of its unlawful actions and a statement about the economic situation absent the wrongdoing, with the defendant's proper actions replacing the unlawful ones (the but-for scenario). Damages measurement then determines the plaintiff's hypothetical value in the but-for scenario. Economic damages are the difference between that value and the actual value that the plaintiff achieved.").

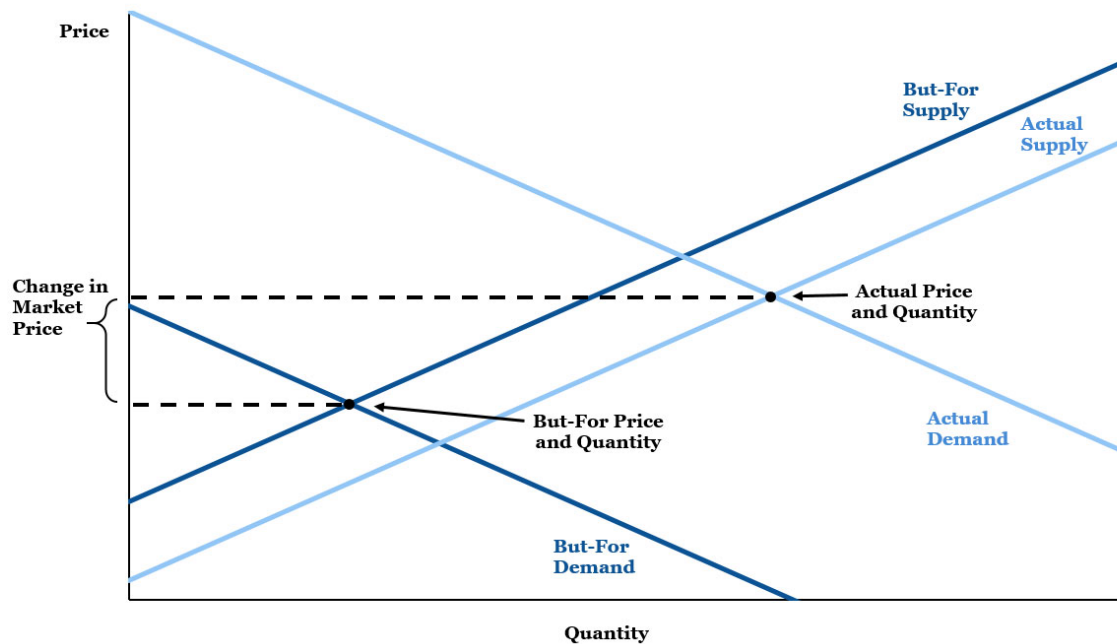
⁴⁹ "The supply curve shows the quantity of a good that producers are willing to sell at a given price. ... The demand curve shows how much of a good consumers are willing to buy as the price per unit changes. ... The two curves intersect at the equilibrium, or market-clearing, price and quantity." See Pindyck, R. S., and D. L. Rubinfeld (2009), *Microeconomics*, Essex, England: Pearson Education, Inc. ("Pindyck (2009)"), pp. 22–25.

⁵⁰ Nicholson, W. (1998), *Microeconomic Theory: Basic Principles and Extensions*, Orlando, FL: The Dryden Press, p. 11 ("[J]ust as you cannot tell which blade of a scissors does the cutting, so too you cannot say that either demand or supply alone determines price."). See also Pindyck (2009), pp. 22–25 ("The supply curve shows the quantity of a good that producers are willing to sell at a given price ... The demand curve shows how much of a good consumers are willing to buy as price per unit changes ... The two curves intersect at the equilibrium, or market-clearing, price and quantity.").

supply and demand for the At-Issue Products in the Actual World and the But-For World.⁵¹

Figure 5 presents this concept graphically:

Figure 5



B. Mr. Boedeker Considered Changes to Product Demand Only and Therefore Cannot Measure Market Prices

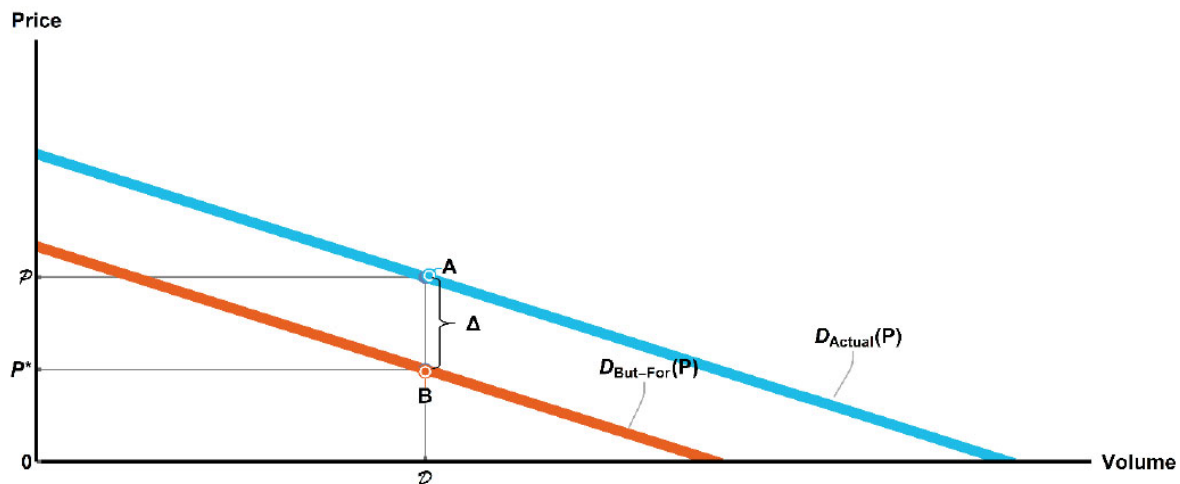
35. Mr. Boedeker acknowledged that he only attempted to estimate how demand would change—and not how supply would change—between the Actual World and the But-For World.⁵² As a result, Mr. Boedeker’s theoretical framework for economic loss cannot provide a measure that can be used to estimate the alleged price premium for the At-Issue Products because his analysis does not estimate a market price in his hypothetical, But-For World since it does not account for supply.

⁵¹ See, for example, Varian, H. R. (1992), “Competitive Markets,” in *Microeconomic Analysis*, New York: W. W. Norton & Company, Inc., 215–232; Mas-Colell, A., M. D. Whinston, and J. R. Green (1995), “Competitive Markets,” in *Microeconomic Theory*, New York, NY: Oxford University Press, 311–343; Goolsbee, A., S. Levitt, and C. Syverson (2013), “Supply and Demand,” in *Microeconomics*, New York, NY: Worth Publishers, 11–51; Allenby, G., J. Brazell, J. Howell, and P. Rossi (2013), “Economic Valuation of Product Features,” *Quantitative Marketing and Economics*, 12, 4, 421–456; Allenby, G., J. Brazell, J. Howell, and P. Rossi (2014), “Valuation of Patented Product Features,” *Journal of Law and Economics*, 57, 3, 629–663; Allenby, G., J. Brazell, J. Howell, and P. Rossi (2014), “Using Conjoint Analysis to Determine the Market Value of Product Features,” *Proceedings of the Sawtooth Software Conference*, 341–355.

⁵² Boedeker Zarinebaf Report, ¶ 40.

36. Figure 6 is an exact reproduction of the graphical depiction of Mr. Boedeker's methodology taken directly from his report:

Figure 6
Graphical Depiction of Mr. Boedeker's Methodology from the Boedeker Report⁵³



37. Notably, Mr. Boedeker titled his figure, “Shifted Demand and Economic Loss,” and indeed, *there are no supply curves* presented anywhere in the figure. The blue line, $D_{\text{Actual}}(P)$, represents the demand for the At-Issue Products in the Actual World.⁵⁴ The orange line, $D_{\text{But-For}}(P)$, represents the demand for the At-Issue Products in the But-For World.⁵⁵ The D on the Volume axis represents the number of units of the At-Issue Products that were sold in the Actual World.⁵⁶ Then, according to Mr. Boedeker, “[t]he vertical distance Δ between points A and B is equal to the compensation required to make all purchasers whole.”⁵⁷

38. Mr. Boedeker is wrong. The demand curve in the But-For World represents the willingness to pay of all potential consumers for the At-Issue Products without the Alleged Misrepresentations or Omissions.⁵⁸ However, estimating the demand in the But-For World *alone*

⁵³ Boedeker Zarinebaf Report, Figure 1.

⁵⁴ Boedeker Zarinebaf Report, ¶ 41.

⁵⁵ Boedeker Zarinebaf Report, ¶ 41.

⁵⁶ Boedeker Zarinebaf Report, ¶ 41.

⁵⁷ Boedeker Zarinebaf Report, ¶ 41.

⁵⁸ See, e.g., Mankiw, N. G. (2008), “The Market Forces of Supply and Demand,” in *Principles of Microeconomics*, Mason, OH: South-Western Cengage Learning, 65–88 (“Mankiw (2008)”), p. 135.

is not sufficient for estimating market prices. This is because what consumers are *willing to pay* for a product does not necessarily reflect what consumers would *actually have to pay* in the market.⁵⁹ Since Mr. Boedeker did not even attempt to account for any changes to product supply in the But-For World, his damages estimates can, at best, measure a difference in consumers' willingness to pay and not a difference in what they would actually pay (*i.e.*, difference in market prices).

39. The distinction between willingness to pay and market price is important because Plaintiffs' theory of damages relies on the existence of an alleged *market price* premium (not a *willingness to pay* premium). In addition, academic findings show that willingness to pay estimates typically overstate the actual changes to market prices. For example, Allenby et al. (2013) finds that "[i]n general, the [willingness to pay] measure will overstate the change in equilibrium price."⁶⁰ Similarly, consider the example provided by Bryan Orme, President and CEO of Sawtooth Software, the software Mr. Boedeker used for his damages estimates:

What is your willingness to pay for a color monitor for your laptop computer versus a monochrome screen? Assume we conducted a conjoint analysis including monochrome versus color monitors. If we computed your willingness to pay for color over monochrome, we would likely find that the incremental value of color over monochrome is worth a thousand dollars or more. But how meaningful is this information to a laptop manufacturer given the fact that laptops with color monitors are readily available in the market at quite inexpensive prices?⁶¹

There is nothing in Mr. Boedeker's theoretical framework that accounts for supply or what is "readily available in the market."⁶² In sum, Mr. Boedeker's estimates—which are based solely on changes in consumers' willingness to pay—are inadequate to calculate any But-For World market price and, therefore, are irrelevant to the "overpayment" damages Plaintiffs claim.

⁵⁹ Mankiw (2008), pp. 138–139.

⁶⁰ Allenby, G., J. Brazell, J. Howell, and P. Rossi (2013), "Using Conjoint Analysis to Determine the Market Value of Product Features," *Proceedings of the Sawtooth Software Conference*, 341–355 at p. 342. Emphasis added.

⁶¹ Orme, B. K. (2014), *Getting Started with Conjoint Analysis: Strategies for Product Design and Pricing Research*, Manhattan Beach, CA: Research Publishers LLC ("Orme (2014)"), p. 91.

⁶² Even Mr. Boedeker's so-called "market simulation" only attempted to calculate *demand* curves (and no supply curves) for hypothetical unbranded products depicted as a bundle of labels at specific price points. See Boedeker Zarinebaf Report, ¶ 85; Boedeker Backup Materials, "BOEDEKER000148.nb."

C. Mr. Boedeker's Explanation for Ignoring the Supply Side Is Based on Faulty and Unsupported Assertions

40. Mr. Boedeker attempted to justify his disregard for supply side factors in his theoretical framework for economic loss with two assertions:

- According to Mr. Boedeker, the *Reference Guide on Estimation of Economic Damages* states that the But-For World should only correct for the harmful act, and this implies that demand in the But-For World can change, but supply in the But-For World cannot.⁶³
- According to Mr. Boedeker, the quantity of the At-Issue Products sold in the But-For World without the Alleged Misrepresentations and Omissions would be exactly the same as the quantity of the At-Issue Products sold in the Actual World (“Fixed Quantity Assertion”).⁶⁴

Both assertions violate basic economic theory and are entirely unfounded, as I explain below.

1. Mr. Boedeker Misinterprets the Reference Guide on Estimation of Economic Damages

41. According to the *Reference Guide on Estimation of Economic Damages*, which Mr. Boedeker quoted in his report, a damages analysis measures the difference between the Actual World and a But-For World where the only difference is the harmful act:

Because the but-for scenario differs from what actually happened only with respect to the harmful act, damages measured in this way isolate the loss of value caused by the harmful act and exclude any change in the plaintiff's value arising from other sources. Thus, a proper construction of the but-for scenario and measurement of the hypothetical but-for plaintiff's value by definition includes in damages only the loss caused by the harmful act.⁶⁵

42. In the current matter, the “harmful act” is the Alleged Misrepresentations and Omissions. Thus, a proper damages analysis needs to construct a But-For World that is identical to the

⁶³ Boedeker Zarinebaf Report, ¶¶ 36–39.

⁶⁴ Boedeker Zarinebaf Report, ¶ 39.

⁶⁵ Boedeker Zarinebaf Report, ¶ 25; Allen, M. A., R. E. Hall, and V. A. Lazear (2011), “Reference Guide on Estimation of Economic Damages,” in *Reference Manual on Scientific Evidence*, Washington, D.C.: The National Academies Press, 425–502 at p. 432.

Actual World except that the Alleged Misrepresentations and Omissions did not occur in the But-For World. Damages should then be calculated as the difference between the market price in the Actual World and the market price that would prevail in the But-For World.

43. Basic economics states that the market price is the intersection of demand and supply.⁶⁶ Thus, per the instructions in the *Reference Guide*, estimating the market price in the But-For World necessitates estimating whether and how both demand *and* supply would change if the Alleged Misrepresentations and Omissions had not occurred.

44. In fact, Mr. Boedeker acknowledged that as a result of the harmful act, both demand and supply may change in the But-For World:

Next, I will frame the appropriate But-For-World. If consumers perceive the product without the claim to be inferior to the product with the claim, then the demand at a given price will be lower.⁶⁷

In the But-For-World, the manufacturer faces a lower demand and – if it could - would set a different price which maximizes profits. Therefore, the manufacturer would achieve a different volume in the But-For-World.⁶⁸

45. Despite his acknowledgement that “the manufacturer would achieve a different volume in the But-For World” (*i.e.*, his acknowledgement that product supply may change), Mr. Boedeker asserted that allowing supply to change “would contradict the postulate of the *Reference Guide on Estimation of Economic Damages* that the But-For-World should only correct for the harmful act.”⁶⁹ In other words, according to Mr. Boedeker’s interpretation of the *Reference Guide*, correcting for the harmful act in the But-For World would involve: (i) removing the Alleged Misrepresentations and Omissions *and* (ii) assessing consumers’ reactions.

46. The *Reference Guide* is clear that the purpose of the hypothetical But-For World is to correct for the harmful act (*i.e.*, remove the Alleged Misrepresentations and Omissions), to trace the impact on all relevant parties (*i.e.*, both consumers (demand) and producers (supply)), and estimate any resulting changes (*i.e.*, changes to market price). Further, assessing the impact of the harmful act in the But-For World entails estimating the But-For World market price, a task

⁶⁶ Mankiw (2008), p. 77 (“The equilibrium is found where the supply and demand curves intersect. At the equilibrium price, the quantity supplied equals the quantity demanded.”).

⁶⁷ Boedeker Zarinebaf Report, ¶ 30.

⁶⁸ Boedeker Zarinebaf Report, ¶ 36. Emphasis added.

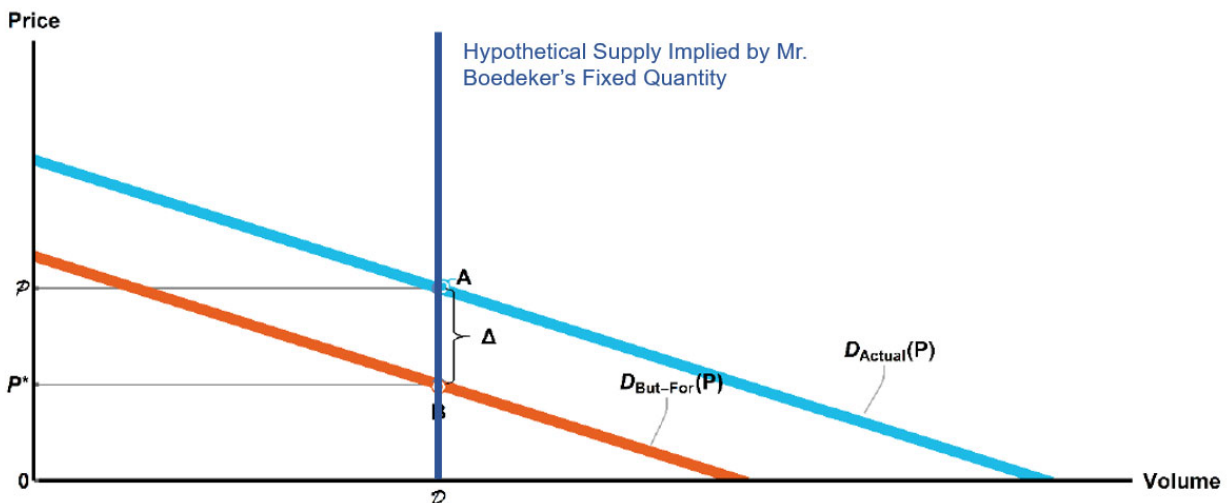
⁶⁹ Boedeker Zarinebaf Report, ¶¶ 36–37.

that requires Mr. Boedeker to account for any changes to both product demand *and* product supply. Thus, contrary to Mr. Boedeker's claims, following the principles laid out by the *Reference Guide* requires allowing the But-For World supply to change.

2. Mr. Boedeker's Fixed Quantity Assertion Is Economically Unsound

47. Mr. Boedeker's assertion that the quantity of the At-Issue Products sold in the But-For World would be exactly the same as the quantity of the At-Issue Products sold in the Actual World is not based on principles of economic analysis and ignores important marketplace realities. As one can see from Mr. Boedeker's own Figure 1, the only way for the quantity to be identical in the But-For World and the Actual World is if the supply curve is *vertical*. In order to illustrate this, I added such a supply curve to the figure from Mr. Boedeker's report in Figure 7 below.

Figure 7
Hypothetical Supply Implied by Mr. Boedeker's Fixed Quantity⁷⁰



48. It is clear in Figure 7 that, Mr. Boedeker's Fixed Quantity Assertion, which involves a scenario in which the supply curve is vertical, necessitates determining market prices only by the

⁷⁰ Boedeker Zarinebaf Report, Figure 1.

movements of the But-For World demand. Indeed, Mr. Boedeker asserts “there is no need for information on the cost structure of the manufacturer or the shape of its supply function.”⁷¹ The implication of Mr. Boedeker’s Fixed Quantity Assertion is that Champion must act as a price taker who is forced to liquidate a fixed inventory. In other words, regardless of how little (or how much) consumers are willing to pay for the At-Issue Products in the But-For World, Mr. Boedeker assumes that Champion could not sell any fewer (or any more) of the At-Issue Products. Even under a scenario where the market price was below its production costs, Champion would be forced to sell its products at a loss for the entire class period without making any adjustment to how much product it made and attempted to sell. Thus, Mr. Boedeker’s But-For World is at odds with economic logic as it disallows profit-maximizing firms from adjusting the quantity supplied based on the market price (as shown in Mr. Boedeker’s Equations 1 and 2 in his report).⁷² At his deposition, Mr. Boedeker reiterated that his But-For World might result in Champion selling the At-Issue Products at a loss, and even agreed that in such a scenario “there would be ... no market for these products,” but claimed that this was “irrelevant for the economic loss that the consumer suffered by overpaying for such a product.”⁷³

49. Mr. Boedeker provides an example of a *horizontal* supply curve in Figure 2 of his report to try to support his claim that supply can be ignored. He provides no explanation of why one would expect Champion’s supply curve to be horizontal, but even ignoring this, his example actually shows why supply cannot be ignored when calculating damages. Mr. Boedeker argues that, in this hypothetical scenario, the price of Champion products would not change if demand were to decrease.⁷⁴ Mr. Boedeker is absolutely correct. If the price of the At-Issue Products is the same in the But-For World as in the Actual World, then there can be no damages. Thus, Mr. Boedeker’s hypothetical example highlights why supply must be considered in any damages calculation.

⁷¹ Boedeker Zarinebaf Report, ¶ 37.

⁷² Boedeker Zarinebaf Report, ¶¶ 27–28. Basic economic theory indicates that profit-maximizing firms will adjust the quantity supplied depending on the market price. *See, e.g.*, Pindyck (2009), p. 279.

⁷³ Deposition of Stefan Boedeker (Rough Transcript), December 2, 2020 (“Boedeker Song Deposition (Rough)”), p. 132:3–17.

⁷⁴ Boedeker Zarinebaf Report, ¶ 58.

50. Mr. Boedeker also argues that the quantity in the But-For World needs to be fixed at the quantity in the Actual World in order to “fully compensate all purchasers for their economic losses.”⁷⁵ Mr. Boedeker is conflating two distinct concepts. Namely, he is conflating (i) the quantity that is arguably needed for class-wide damages calculations (*i.e.*, actual sales) with (ii) the quantity that would be sold in the But-For World at the market equilibrium price. Estimating market prices in the But-For World would entail determining supply as well as demand for the At-Issue Products without the Alleged Misrepresentations and Omissions. It is possible that in the But-For World, supply and demand intersect at a different price and associated quantity than the Actual World price and quantity (higher or lower).⁷⁶ Any difference in market price between the Actual World and the But-For World is the alleged price premium. To the extent this per unit price premium can be reliably calculated, Plaintiffs may argue that determining damages would involve multiplying this estimated price premium with the quantity sold in the Actual World (regardless of whether the But-For World quantity is equal to the Actual World quantity or not). Even so, the quantity sold in the Actual World cannot be a fixed data point in determining market price in the But-For World.

51. Ultimately, neither of Mr. Boedeker’s assertions make sense. The critical flaw in Mr. Boedeker’s theoretical framework for economic loss is that, by his own admission, what he is purporting to estimate is not a market price that is determined by the intersection of supply and demand.⁷⁷ No Proposed Class Member would have paid Mr. Boedeker’s estimated “price” in the But-For World and therefore it is irrelevant to a price premium damages calculation.

⁷⁵ Boedeker Zarinebaf Report, ¶ 41.

⁷⁶ Boedeker Zarinebaf Report, ¶ 36 (“The First Order Condition in the But-For-World is different from the First Order Condition in the Actual-World. In the But-For-World, the manufacturer faces a lower demand and – if it could – would set a different price which maximizes profits”).

⁷⁷ Boedeker Zarinebaf Report, ¶ 58 (“Restitution for all class members can only be achieved if the price premium is calculated as the difference between the actual and the but-for demand for the quantity sold in the actual world.”).

VII. Mr. Boedeker's Conjoint Surveys Cannot Generate Reliable Estimates of Consumer Preferences or Demand for At-Issue Products in the Actual World or the But-For World

A. Mr. Boedeker's Survey Samples Are Not Representative of Proposed Class Members and Cannot Be Used to Estimate Their Preferences

52. To estimate demand curves for the At-Issue Products, Mr. Boedeker relies on data collected from respondents in four conjoint surveys. One of the fundamental requirements in proper survey design is identifying the appropriate universe or population and drawing a sample that is representative of that population. As discussed in Dr. Shari Diamond's *Reference Guide on Survey Research*:

One of the first steps in designing a survey or in deciding whether an existing survey is relevant is to identify the target population (or universe). The target population consists of all elements (*i.e.*, individuals or other units) whose characteristics or perceptions the survey is intended to represent.⁷⁸

Defining the target population, and appropriately sampling from that population, is critical because “[a] survey that provides information about a wholly irrelevant population is itself irrelevant.”⁷⁹

53. If Mr. Boedeker's goal was to estimate the demand curves for the At-Issue Products, then the target population must be the set of consumers who have purchased (or would have considered purchasing) the At-Issue Products. Consider, for example, a researcher interested in estimating how different product features influence demand for the Nike Vaporfly, a premium running shoe marketed to elite runners.⁸⁰ The Nike Vaporfly, which has an MSRP of \$250, is more than twice as expensive as the average pair of running shoes in a specialty-running store,⁸¹ and features technologies such as a lightweight carbon fiber plate in the foam for energy return.⁸² Surveying all consumers who have purchased or considered purchasing any shoes or even

⁷⁸ Diamond, S. S. (2011), “Reference Guide on Survey Research,” in *Reference Manual on Scientific Evidence*, Washington, D. C.: The National Academies Press, 359–423 (“Diamond (2011)”), at p. 376.

⁷⁹ Diamond (2011), p. 377.

⁸⁰ See “Nike ZoomX Vaporfly NEXT%,” Nike, <https://www.nike.com/t/zoomx-vaporfly-next-running-shoe-4Q5jfG/AO4568-800>.

⁸¹ See “Cheap Vs. Expensive Shoes: Does It Matter,” *Podium Runner*, <https://www.podiumrunner.com/gear/cheap-vs-expensive-shoes-matter/>.

⁸² See “Nike ZoomX Vaporfly NEXT%,” Nike, <https://www.nike.com/t/zoomx-vaporfly-next-running-shoe-4Q5jfG/AO4568-800>.

running shoes generally in the past three years would be an unreliable method for understanding how the population of interest, elite runners, consider and value different product features. The market for elite running shoes is simply different from the market for all shoes (which would include shoes at all price points and for purposes other than running), and even the market for running shoes. Yet Mr. Boedeker makes an analogous error in his survey sample selection. His survey sample consists primarily of respondents who have *not* purchased (or would *not* have considered purchasing) the At-Issue Products, which is a wholly irrelevant population. As a result, the data collected from Mr. Boedeker's Conjoint Surveys cannot be used to reliably estimate the demand for the At-Issue Products.

54. To qualify for Mr. Boedeker's surveys, respondents were not required to have purchased or considered purchasing ACANA or ORIEN.⁸³ Instead, respondents only had to have purchased or considered purchasing⁸⁴ one or more dog food brands from a list of 32 brands

⁸³ Mr. Boedeker selectively included some of the respondents from the surveys that he conducted in the Song matter in his sample for the current matter. See Deposition of Stefan Boedeker, March 16, 2021 ("Boedeker Colangelo Deposition"), pp. 63:15–64:1. Many of the open-ended responses provided by Mr. Boedeker's respondents in the current matter are identical to those in the Song matter. See Boedeker Backup Materials; Boedeker Backup Materials (Song Report). It is unclear whether Mr. Boedeker fielded his surveys for the current matter and the Song matter during the same time period. In his report, Mr. Boedeker said that his surveys for the current matter were fielded in September and October of 2020. See Boedeker Zarinebaf Report, ¶ 149. However, at his deposition, Mr. Boedeker stated that he thought this date was incorrect: "September, October, 2020 would have been too early for these three states." See Boedeker Colangelo Deposition, p. 62:3–11. If Mr. Boedeker fielded his surveys for the current matter at a different time than the Song matter, then this could lead to substantial data integrity issues. Specifically, he may have surveyed the same individuals multiple times. Mr. Boedeker did not provide any details on this in his report or appendices (and, as noted, appears to have provided an inaccurate date for when his surveys in the current matter were fielded in his report). Furthermore, Mr. Boedeker did not provide details on how he selected the respondents from the Song matter to include in his sample for the current matter. This calls into question the integrity of his sampling process. See Diamond (2011), p. 415.

⁸⁴ Note that in his report Mr. Boedeker claims he restricted his sample to only respondents who had *actually purchased* one or more of the qualifying brands in his list. See Boedeker Zarinebaf Report, ¶ 108. However, Mr. Boedeker's Appendix 1 indicates that any respondent who purchased *or considered* one or more of the qualifying brands would qualify for his survey. See Boedeker Zarinebaf Report, Appendix 1, pp. 15, 56, 87, 129. Therefore, respondents need not have been purchasers, and there is apparently no way to tell which respondents were purchasers vs. considerers of the qualifying brands. This criterion differs from Mr. Boedeker's survey in the *Loeb* matter, where respondents were required to have purchased at least one brand from a similar list of qualifying brands. Mr. Boedeker acknowledged at his deposition that his survey did not include any follow-up questions that would allow him to identify survey respondents who considered, but never purchased, one of the qualifying brands. Boedeker Song Deposition (Rough), pp. 41:12–42:3. See Expert Report of Stefan Boedeker in Support of Plaintiff's Motion for Class Certification, *Kellie Loeb et al., v. Champion Petfoods USA Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 18-494, November 16, 2018 ("Loeb Boedeker Report"), ¶ 112. The Loeb Boedeker Report was filed in *Kellie Loeb et al., v. Champion Petfoods USA Inc. et al.*, United States District Court for the Eastern District of Wisconsin, Case No. 18-494.

provided in Mr. Boedeker's surveys.⁸⁵ Figure 8 below summarizes how many respondents in Mr. Boedeker's surveys purchased or considered purchasing ACANA or ORIJEN products.⁸⁶ Across the four Conjoint Surveys, 2,068 respondents out of the total 2,375 respondents (87.1 percent) neither purchased nor considered purchasing ACANA or ORIJEN in the last three years.⁸⁷ In other words, only 307 respondents out of 2,375 (12.9 percent) purchased or considered purchasing ACANA or ORIJEN in the last three years.

⁸⁵ The qualifying brands used to screen respondents include the following: ACANA, Blue, Blue Wilderness, Castor & Polloux Pristine-Raw Bites, Earthborn Natural, Fromm 4 Star, Fromm Gold, Go! Sensitive, Go! Fit and Free, Holistic Select, Instinct Original Grain Free, K9 Natural, Kirkland Signature Nature's Domain, Merrick Backcountry, Merrick Classics, Merrick Grain Free, Natural Balance, Nature's Variety, NOW Fresh, NutriSource Grain Free, Nutro, Open Farm, ORIJEN, Primal, Purina Pro Plan, Rawz, SOJO's Complete Beef, Stella & Chewy's, Taste of the Wild, Vital Essentials Limited Ingredient, Wellness CORE, and Zignature.

⁸⁶ Mr. Boedeker only produced information regarding his final sample of 2,375 respondents. It is worth noting that the *Reference Guide on Survey Research* states that, "[t]he completeness of the survey report is one indicator of the trustworthiness of the survey and the professionalism of the expert who is presenting the results of the survey. A survey report generally should provide in detail ... [a] description of the results of sample implementation, including the number of a. potential respondents contacted, b. potential respondents not reached, c. noneligibles, d. refusals, e. incomplete interviews or terminations, and f. completed interviews." See Diamond (2011), p. 415. Neither Mr. Boedeker's report nor his appendices or production files include information regarding how many survey invitations were sent, how many of the total invitees took the survey, how many respondents began but did not complete the surveys, and how many respondents completed the surveys but were excluded from Mr. Boedeker's final sample.

⁸⁷ At his deposition for the Song matter in Minnesota, Mr. Boedeker agreed that his surveys were "designed to predict the behavior of people in Minnesota who bought Champion Petfoods," yet also testified that there was "a very strong point to be made to not limit the ... respondents to just people who are [class members]" based on his argument that non-purchasers of Champion products play a role in determining market prices. Boedeker Song Deposition (Rough), p. 115:9–12, 116:12–25. This reasoning reflects a gross misunderstanding of the concept of demand for a product, which is comprised of individuals who are willing and able to purchase the product at a given price. See, e.g., Mankiw (2008), p. 67; Pindyck (2009), pp. 23–24.

Figure 8
Percent of Boedeker Conjoint Survey Respondents Who Indicated Purchasing or
Considering Purchasing ACANA or ORIEN

	Number of Respondents	Percent of Respondents
Total Respondents	2,375	100.0%
Did Not Purchase or Consider Purchasing ACANA or ORIEN in the Last 3 Years	2,068	87.1%
Purchased or Considered Purchasing ACANA or ORIEN in the Last 3 Years	307	12.9%

Source: Boedeker Report and Backup Materials

55. An even smaller percentage of his respondents can be considered as potential Proposed Class Members.⁸⁸ Figure 9 below summarizes the proportion of respondents in Mr. Boedeker's surveys who indicated living in Illinois at the time they participated in the survey and having purchased or considered purchasing ACANA or ORIEN in the last 3 years. Across the four conjoint surveys, only 670 respondents out of 2,375 (28.2 percent) indicated currently living in Illinois.⁸⁹ Of these 670 respondents, only 98 had purchased or considered purchasing ACANA or

⁸⁸ It is worth noting that Mr. Boedeker's surveys contain several design flaws and inconsistencies that prevent identification of potential class members. First, none of Mr. Boedeker's Conjoint Surveys asked respondents whether they have resided in Illinois at any point since July 1, 2014 (a criterion for inclusion in the Proposed Class). Mr. Boedeker's Omissions Surveys and ACANA Misrepresentations Surveys asked respondents whether they have "reside[d] in *Minnesota* anytime from January 1, 2015 to the present." See Boedeker Zarinebaf Report, Appendix 1, pp. 68, 110, 141. Emphasis added. Yet, residing in Minnesota at any point since January 1, 2015 is not a relevant criterion for inclusion in the Proposed Class or Mr. Boedeker's sample. Mr. Boedeker did not explain why he solicited this wholly irrelevant piece of information. Additionally, Mr. Boedeker's Omissions Surveys and ACANA Misrepresentations Survey asked respondents whether they have purchased ORIEN or ACANA dry dog food between January 1, 2015 and the present. Mr. Boedeker did not explain why he selected January 1, 2015, an arbitrary date, as a cutoff. Further, in the ORIEN Misrepresentations Survey, Mr. Boedeker chose to completely remove both of these questions. See Boedeker Colangelo Deposition, p. 68:1-15. He did not provide any explanation as to why his surveys differ or why questions that are pertinent in three of his surveys are not for the fourth. See Boedeker Zarinebaf Report, Appendix 1, pp. 2-42, 67-68, 109-110, 140-141.

⁸⁹ In his work in the *Loeb* matter in Wisconsin, Mr. Boedeker justified his use of a nationwide sample by conducting a pilot study regarding dog food purchasers' preferences and testing to see if Wisconsin purchasers had significantly different preferences than U.S. purchasers more broadly. See Loeb Boedeker Report, Table 2. Mr. Boedeker has *not* conducted such analysis in this matter.

ORIJEN in the last 3 years. Thus, only 4.1 percent of Mr. Boedeker's sample could potentially qualify as Proposed Class Members.⁹⁰

Figure 9
Percent of Boedeker Conjoint Survey Respondents Who Could Be Members of the Proposed Class

	Number of Respondents	Percent of Respondents
Total Respondents	2,375	100.0%
Currently Reside in Illinois	670	28.2%
Currently Reside in Illinois and Purchased or Considered Purchasing ACANA or ORIJEN in the Last 3 Years	98	4.1%

Source: Boedeker Report and Backup Materials

56. Mr. Boedeker provided no justification of how his survey sample—which consisted almost entirely of respondents who neither purchased nor considered purchasing the At-Issue Products—can be representative of consumers who purchased (or would purchase) the At-Issue Products. In fact, many respondents in Mr. Boedeker's surveys explicitly stated that, in the real world, they would not purchase dog food products at the prices that Mr. Boedeker used in his survey. Preferences of respondents who do not purchase, and would not consider purchasing, products at ACANA or ORIJEN price points cannot possibly be representative of the preferences of Proposed Class Members who, by definition, actually purchased At-Issue Products. For example, in the following open-ended comments, Mr. Boedeker's respondents clearly indicated that the prices that Mr. Boedeker selected as representative of ACANA and ORIJEN products were much higher than prices they pay, or would pay, for dog food in the real world:⁹¹

⁹⁰ Note that Mr. Boedeker did not ask respondents if they had lived in Illinois since January 1, 2015 in any of his four Conjoint Surveys. Additionally, Mr. Boedeker did not ask respondents in his ORIJEN Omissions survey if they had purchased ACANA or ORIJEN products since January 1, 2015. Thus, based on the information collected by Mr. Boedeker, it is not possible to determine which or how many respondents, if any, would qualify as Proposed Class Members.

⁹¹ Boedeker Zarinebaf Report, ¶ 119.

- “The prices for a 13 pound bag are outrageous”⁹²
- “All of the options are too expensive for my budget”⁹³
- “I have never observed the provided prices for a THIRTEEN pound bag of dog food”⁹⁴
- “Price is too high”⁹⁵
- “I would never pay that much for dog food.”⁹⁶
- “The dog food was too expensive.”⁹⁷
- “[U]nless an individual is bringing home a six figure income who else could possibly afford a weeks paycheck a month to feed their pets”⁹⁸
- “While these are nice thing to have in a dog food, dog food should not be priced so high that it is unaffordable, or priced out of competition. If it is, than it is catering to a very specific financial market and shouldn’t be in a survey directed to the general middle class.”⁹⁹
- “Prices seem high for a 13lb bag”¹⁰⁰
- “All of the options are too expensive for us.”¹⁰¹
- “I find the price point high”¹⁰²
- “The sample prices seemed incredibly high. We pay around \$40 for a 40 pound bag.”¹⁰³
- “All of the food prices seemed high.”¹⁰⁴
- “The price of all of these seems really high”¹⁰⁵

⁹² Respondent ID# 19 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹³ Respondent ID# 363 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹⁴ Respondent ID# 382 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹⁵ Respondent ID# 383 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹⁶ Respondent ID# 230 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹⁷ Respondent ID# 372 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹⁸ Respondent ID# 206 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

⁹⁹ Respondent ID# 100 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

¹⁰⁰ Respondent ID# 567 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

¹⁰¹ Respondent ID# 606 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

¹⁰² Respondent ID# 711 (ORIEN Misrepresentations). *See* Boedeker Backup Materials.

¹⁰³ Respondent ID# 371 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁰⁴ Respondent ID# 437 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁰⁵ Respondent ID# 54 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

- “I prefer to buy healthy ingredients at a discount. Over \$60 for a 25# bag is excessive.”¹⁰⁶
- “All of the options shown were too expensive for my budget, I find good alternatives that my dogs thrive on at much lower prices”¹⁰⁷
- “the dog food at the prices listed and for the size bag is too expensive sorry”¹⁰⁸
- “One of the key ‘critical factors’ must be cost. Dry dog food should not cost over \$50/25lbs.\The tern wholeprey is a real turnoff..especially for non-rural customers”¹⁰⁹
- “I would not buy this brand, its too expensive.”¹¹⁰
- “Need to offer lower pricing.”¹¹¹
- “I would love to feed this to my dog but it costs more than what I eat so I am better off feeding him my chicken and turkey off my plate.”¹¹²
- “prices too high”¹¹³
- “This dog food is too expensive does not provide a unique product”¹¹⁴
- “Too expensive for regular consumers”¹¹⁵
- “Wow – those brands are very pricey.”¹¹⁶
- “the prices are insane and no normal, working class person is going to pay that much money for 25 lbs of dog food no matter what is in it.”¹¹⁷
- “the pricing on each of the choices of dog food was too high. if you seriously wanted to know if people will buy one over the other, more realistic pricing should be used”¹¹⁸
- “Your pricing was just way way too high. ”¹¹⁹

¹⁰⁶ Respondent ID# 74 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁰⁷ Respondent ID# 77 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁰⁸ Respondent ID# 107 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁰⁹ Respondent ID# 110 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹⁰ Respondent ID# 124 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹¹ Respondent ID# 273 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹² Respondent ID# 306 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹³ Respondent ID# 310 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹⁴ Respondent ID# 340 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹⁵ Respondent ID# 579 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹⁶ Respondent ID# 628 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹¹⁷ Respondent ID# 48 (ACANA Omissions). *See* Boedeker Backup Materials.

¹¹⁸ Respondent ID# 834 (ACANA Omissions). *See* Boedeker Backup Materials.

¹¹⁹ Respondent ID# 893 (ACANA Omissions). *See* Boedeker Backup Materials.

57. These comments are not surprising in light of the price levels of dog food products that Mr. Boedeker used to screen his respondents, which are typically lower than ACANA and ORIJEN products. This means that respondents who qualified for Mr. Boedeker's survey based on their purchase, or purchase consideration, of other products may have never purchased a dog food product at a similar price as ACANA and ORIJEN products in the real world. Figure 10 compares the price levels used in Mr. Boedeker's Conjoint Surveys and the actual prices of Mr. Boedeker's qualifying brands. Almost 40 percent of the qualifying brands have prices below the lowest price used in the ORIJEN Omissions Survey and more than 75 percent have prices below the lowest price used in the ORIJEN Misrepresentations Survey. Additionally, 92 percent of the qualifying brands have prices below the median price used in the ORIJEN Omissions Survey and 100 percent have prices below the median price used in the ORIJEN Misrepresentations Survey. For ACANA, 8 percent of the qualifying brands have prices below the lowest price used in the surveys and 62 percent have prices below the median survey price.

Figure 10
The Qualifying Brands in Mr. Boedeker's Surveys
Are Cheaper than ACANA and ORIJEN

	Price	Package Size (lbs)	Number of Dog Food Product Prices Below Price Level ^[1]	Percent of Dog Food Product Prices Below Price Level
Orijen Misrepresentations Survey				
Survey Price Level 1	\$45.99	13	64	75%
Survey Price Level 2	\$56.99	13	83	98%
Survey Price Level 3	\$65.99	13	85	100%
Survey Price Level 4	\$72.99	13	85	100%
Survey Price Level 5	\$85.99	13	85	100%
Orijen Omissions Survey				
Survey Price Level 1	\$56.99	25	22	37%
Survey Price Level 2	\$69.99	25	41	68%
Survey Price Level 3	\$80.99	25	55	92%
Survey Price Level 4	\$89.99	25	59	98%
Survey Price Level 5	\$105.99	25	60	100%
ACANA Misrepresentations and Omissions Surveys^[2]				
Survey Price Level 1	\$46.99	25	5	8%
Survey Price Level 2	\$57.99	25	24	40%
Survey Price Level 3	\$66.99	25	37	62%
Survey Price Level 4	\$73.99	25	43	72%
Survey Price Level 5	\$87.99	25	57	95%

Source: Boedeker Report and Backup Materials; CPF1766183.xlsx

Note:

[1] Prices are normalized by multiplying the price per pound of a given product by the package size considered in the survey. Because larger packages are expected to be offered at a discounted per pound price, I limited my analysis to dog food products with package sizes within 3 pounds of the package size considered in the survey. For dog food products for which both MSRP and online price are available, I considered the higher of the two prices. Of the 30 brands used by Mr. Boedeker to screen survey respondents, 19 were available in the Champion U.S.A. Pricing Guide in the package sizes I considered and are included in the above analysis (Blue, Blue Wilderness, Earthborn Natural, Fromm 4 Star, Fromm Gold, Go Sensitive, Go Fit + Free, Instinct Original Grain Free, Merrick Backcountry, Merrick Classics, Merrick Grain Free, Natural Balance, NOW Fresh, NutriSource Grain Free, Open Farm, Rawz, Taste of the Wild, Wellness CORE, and Zignature). Out of the 2,375 respondents who completed the Boedeker Conjoint Surveys, 85 percent indicated having purchased or considered purchasing at least one of these 19 brands in the previous three years.

[2] The price levels and bag size used in the ACANA Misrepresentations and Omissions Surveys were the same, and as such only one panel for ACANA is included above.

58. The incomes of Mr. Boedeker's survey respondents provide additional evidence that respondents who took Mr. Boedeker's Conjoint Surveys are not representative of ACANA or

ORIJEN purchasers. As Mr. Boedeker acknowledged in his report, it is likely that premium dog foods are purchased mainly by affluent households.¹²⁰ Nevertheless, almost a third of Mr. Boedeker's survey respondents had incomes less than \$50,000.¹²¹ This is inconsistent with Mr. Boedeker's observation and with ACANA and ORIJEN's positioning as premium brands. For example, according to a January 2017 U.S. Dog Pet Food Survey commissioned by Champion ("U.S. Dog Pet Food Survey"), individuals with annual household incomes higher than \$60,000 were more likely to be aware of the ACANA and ORIJEN brands.¹²² The U.S. Dog Pet Food Survey also found that, unlike Mr. Boedeker's respondents quoted above, price is less of a concern to individuals with higher household incomes.¹²³

59. Because the vast majority of Mr. Boedeker's survey data was collected from respondents who have not purchased, and likely would not purchase, the At-Issue Products, Mr. Boedeker cannot use this survey data to reliably estimate demand for the At-Issue Products. If Mr. Boedeker were to limit his analysis to focus only on respondents who indicated they currently reside in Illinois and who indicated they purchased or considered purchasing ACANA or ORIJEN products in the last 3 years, the resulting sample size would be less than 5 percent of his original sample size—too small to rely on.¹²⁴

B. Mr. Boedeker's Survey Instruments Are Fundamentally Flawed

60. For a conjoint survey instrument to generate reliable estimates of consumer preferences, choice tasks should reflect as closely as possible the real-world environment in which the purchase decision would be made for the relevant products:

¹²⁰ Boedeker Zarinebaf Report, ¶ 155.

¹²¹ Boedeker Zarinebaf Report, Errata and Clarifications, p. 1.

¹²² See "Brand Finance U.S. Dog Pet Food Survey," *Brand Finance*, January 13, 2017, CPF0145434–5538, at 489.

¹²³ See "Brand Finance U.S. Dog Pet Food Survey," *Brand Finance*, January 13, 2017, CPF0145434–5538, at 474. At his deposition, Mr. Silverman testified that "My understanding is that Acana is a premium-priced product and Orijen are super premium-priced products." See Deposition of Bruce Silverman, November 24, 2020 ("Silverman Song Deposition"), pp. 63:24–64:1.

¹²⁴ See Figure 9 above.

[C]hoice tasks should be designed to be *realistic and natural, approximating as closely as possible the actual choice context*; and the choices offered should be credible.¹²⁵

The profiles presented [in a conjoint survey] should be *believable (and should resemble existing products as much as possible)*.¹²⁶

The menus of products and their descriptions are designed to *realistically mimic a market experience* where a consumer can choose among various competing products.¹²⁷

Of general concern is the question about the realism of the task required from interviewees. The trade-offs involved in comparing alternative hypothetical objects may seem quite unreal to individuals cooperating with a conjoint analysis study. ... *[If] the hypothetical objects differ dramatically from the actual objects (products) available, the task will be more demanding and the judgments may not be as representative of what an individual would actually do in a marketplace setting.*¹²⁸

61. As I explain below, both the Misrepresentations Surveys and Omissions Surveys violated these basic guidelines and presented respondents with products and choice tasks that bore little to no resemblance to what consumers experience in the real world. Mr. Boedeker's Omissions Surveys are further flawed because they solicit preferences in relation to respondents' favorite dog food products instead of ORIJEN or ACANA products that are at issue. As a result, Mr. Boedeker's Conjoint Surveys cannot provide reliable estimates of consumer demand for the At-Issue Products.

¹²⁵ Carson, R. T., J. D. Louviere, D. A. Anderson, P. Arabie, D. S. Bunch, D. A. Hensher, R. M. Johnson, W. F. Kuhfeld, D. Steinberg, J. Swait, H. Timmermans, and J. B. Wiley (1994), "Experimental Analysis of Choice," *Marketing Letters*, 5, 4, 351–367 at p. 355. Emphasis added.

¹²⁶ Rao, V. R. (2014), *Applied Conjoint Analysis*, New York, NY: Springer, p. 45. Emphasis added.

¹²⁷ Ben-Akiva, M., D. McFadden, and K. Train (2019), "Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-Based Conjoint Analysis," *Foundations and Trends in Econometrics*, 10, 1–2, 1–144 at p. 11. Emphasis added.

¹²⁸ Cattin, P. and D. R. Wittink (1982), "Commercial Use of Conjoint Analysis: A Survey," *Journal of Marketing*, 46, 3, 44–53 at 51. Emphasis added.

1. Misrepresentations Surveys

62. The premise of Mr. Boedeker's Misrepresentations Surveys has no connection to the purchase experience of the At-Issue Products in the real world. In his Misrepresentations Surveys, Mr. Boedeker first instructed respondents to *assume that they are already purchasing a specific Champion product*. For the ACANA Misrepresentations Survey, for example, the instructions stated:

Next, we have a brief exercise to help us learn about your dog food purchase preferences. *Assume that you are purchasing a 25-pound bag of Acana Regionals Meadowland dry dog food.*¹²⁹

63. For the ORIJEN Misrepresentations Survey, the instructions stated:

Next, we have a brief exercise to help us learn about your dog food purchase preferences. *Assume that you are purchasing a 13-pound bag of Orijen Regional Red dry dog food.*¹³⁰

64. After these instructions, Mr. Boedeker asked respondents in his Misrepresentations Surveys to view a combination of labels that could appear on the Champion product (that they have just been asked to assume they are purchasing) and to "select the option that matches [their] preference."¹³¹ This type of label evaluation exercise Mr. Boedeker's respondents were asked to go through is fundamentally untethered to how consumers make dog food purchase decisions in the real world. In the real world, consumers do not evaluate which labels they would prefer on a product (and definitely not on a product that they are told to assume they are buying) and make product choices based on a subset of claims on that product's label.

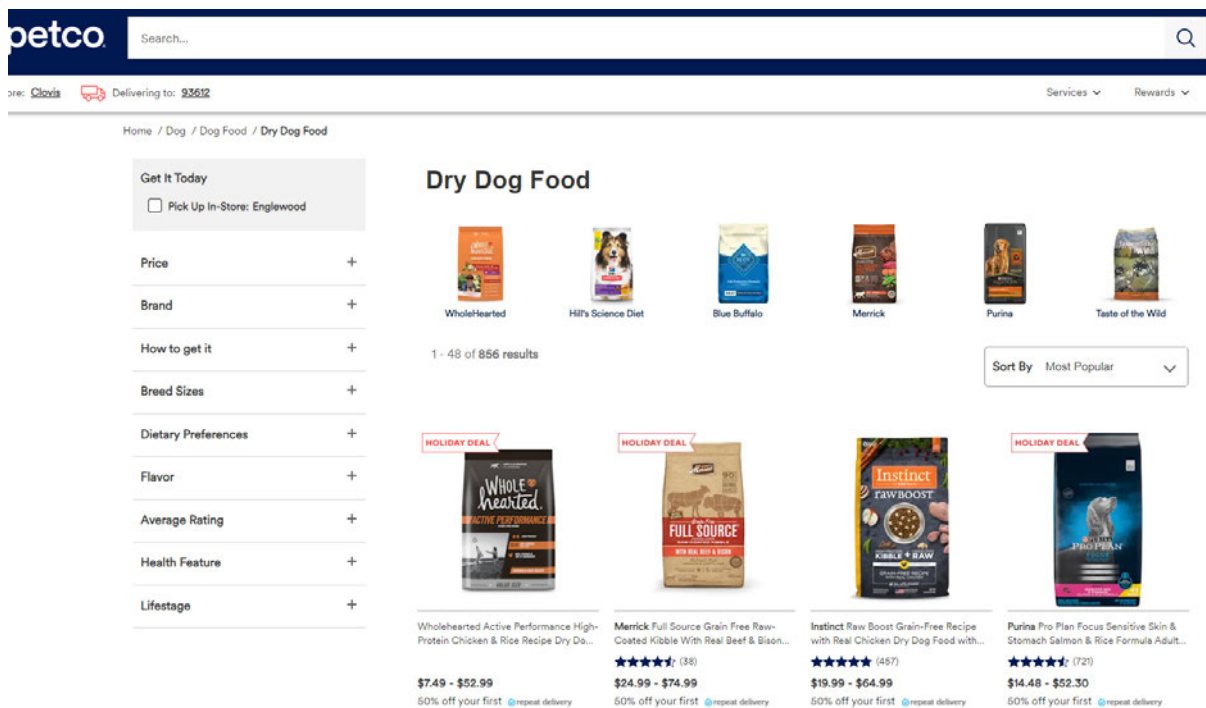
65. Instead, consumers in the real world select from a set of dog food products that vary across many dimensions. As an example, consider the various options from which consumers can choose in the real world on Petco.com. See Figure 11 below.

¹²⁹ Boedeker Zarinebaf Report, ¶ 133. Emphasis added.

¹³⁰ Boedeker Zarinebaf Report, ¶ 129. Emphasis added.

¹³¹ Boedeker Zarinebaf Report, Appendix 1, pp. 26, 98.

Figure 11
Example Dog Food Search on Petco.com



Here, consumers are presented with dog food products from a variety of brands, price points, flavors, sizes, and an assortment of other product features such as diet considerations (*e.g.*, with grain or grain-free) or life stage (*e.g.*, puppy, adult, or senior).¹³² On the left side of the web page, consumers are presented with the option to filter their search results by price, brand, delivery options, breed size, dietary preferences, flavor, average rating, health feature, and life stage. When consumers navigate to a particular product, they are further presented with an additional description of that particular product and are able to view the ingredients list. Consumers can then choose which product to purchase depending on their individual preferences.

66. This ability to review and filter based on different dog food attributes caters to consumers, whose preferences for different attributes vary from one consumer to the next.¹³³

¹³² See, *e.g.*, “Dry Dog Food,” *Petco*, <https://www.petco.com/shop/en/petcostore/category/dog/dog-food/dry-dog-food>.

¹³³ Peter, J. P. and J. C. Olson (2010), “Affect and Cognition and Marketing Strategy,” in *Consumer Behavior and Marketing Strategy*, New York, NY: McGraw-Hill/Irwin, 36–65.

Different consumers may have specific preferences regarding ingredients due to their dog's breed,¹³⁴ allergies,¹³⁵ weight and dental concerns,¹³⁶ or flavor preferences.¹³⁷ Consumers' prior experiences with a product also play a large role in influencing their decisions.¹³⁸ For example, health issues were a factor in Minnesota Named Plaintiff Mr. Wertkin's dog food purchase decisions – he testified that he switched from ORIJEN to ACANA because one of his dogs was having skin issues and the veterinarian recommended a lower-protein diet.¹³⁹ Some consumers care more about nutritional quality, while others may be more concerned with fresh ingredients, the quantity and type of meat, or the carbohydrate percentage.¹⁴⁰ Indeed, Minnesota Named Plaintiff Ms. Song indicated at her deposition that a grain-free diet was important to her because she believed it to be optimal for dogs.¹⁴¹ Mr. Chernik, a Named Plaintiff in this matter, also

¹³⁴ For example, small or toy breed dogs tend to have high metabolisms and may require food with a high energy content that is also easy to swallow and digest. Large and giant breeds reach adulthood quickly and are particularly prone to joint issues, so they may need omega-3 and omega-6 fatty acids, glucosamine, and chondroitin sulphate. Dogs with flat faces like pugs or French bulldogs often require food of particular shapes and textures. See “Why You Should Tailor Your Dog's Food to Their Age and Breed,” *The Telegraph*, December 15, 2017, <https://www.telegraph.co.uk/pets/family-animals/choose-the-right-food-for-your-dog/>.

¹³⁵ For example, some dogs suffer from food allergies and intolerances, which I understand often relate to the consumption of specific animal proteins. See “What Every Pet Owner Should Know about Food Allergies,” *Clinical Nutrition Service at Cummings School*, January 27, 2017, <http://vetnutrition.tufts.edu/2017/01/food-allergies/>.

¹³⁶ “How to Choose the Best Pet Food for Puppies,” *VetStreet*, March 11, 2014, <http://www.vetstreet.com/drmarty-becker/how-to-choose-the-best-pet-food-for-puppies>; “Why You Should Tailor your Dog's Food to Their Age and Breed,” *The Telegraph*, December 15, 2017, <https://www.telegraph.co.uk/pets/family-animals/choosethe-right-food-for-your-dog/>.

¹³⁷ For example, according to the U.S. Dog Pet Food Survey, 66 percent of respondents indicated that they evaluate dog food products on whether or not their dog likes the food. See “Brand Finance U.S. Dog Pet Food Survey,” *Brand Finance*, January 13, 2017, CPF0145434–5538, at 463.

¹³⁸ For example, 95 percent of respondents in the U.S. Dog Pet Food Survey indicated that they judge the quality of their dog's food based on their dog's reactions to eating it (e.g., whether their dog likes the food or the appearance of their dog's coat). Additionally, 85 percent of respondents in the survey indicated that they always feed their dog the same brand. See “Brand Finance U.S. Dog Pet Food Survey,” *Brand Finance*, January 13, 2017, CPF0145434–5538, at 458, 463. See also Macdonald, E. K. and B. M. Sharp (2000), “Brand Awareness Effects on Consumer Decision Making for a Common, Repeat Purchase Product: A Replication,” *Journal of Business Research*, 48, 5–15.

¹³⁹ Deposition of Scott Wertkin, August 31, 2020, pp. 27:5–10; 57:23–58:1. Note that Mr. Wertkin is a named plaintiff in a similar matter and a purchaser of Champion dog food. *Jennifer Song et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, District of Minnesota, Case No. 18-cv-03205-PJS-KMM.

¹⁴⁰ For example, according to the U.S. Dog Pet Food Survey, consumers age 55 and older care more about nutritional quality, while consumers under age 55 are more concerned with fresh ingredients, the quantity and type of meat, and the carbohydrate percentage. See “Brand Finance U.S. Dog Pet Food Survey,” *Brand Finance*, January 13, 2017, CPF0145434–5538, at 478.

¹⁴¹ Deposition of Jennifer Song, August 25, 2020 (“Song Deposition”), p. 51:13–17. Note that Ms. Song is a named plaintiff in a similar matter and a purchaser of Champion dog food. *Jennifer Song et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, District of Minnesota, Case No. 18-cv-03205-PJS-KMM.

indicated that he purchased Champion products because he read the ingredients list and saw that the product did not contain grains.¹⁴²

67. These preferences for dog food products can also change over time, for example, as dog owners' incomes change,¹⁴³ as a dog transitions through life stages,¹⁴⁴ or as dog owners receive new information from experts or other third parties, such as veterinarians or pet store employees.¹⁴⁵ For example, Ms. Song testified that when she got her first dog, Suzy, she selected dog food based on discussions with veterinarians and employees at a specialty pet foods store.¹⁴⁶ Ms. Song also testified that, for a time, she fed Suzy raw dog food due to weaknesses associated with her back leg and kidney.¹⁴⁷ When Suzy was older, Ms. Song purchased ORIJEN Senior dog food due to her dog's age.¹⁴⁸ As another example, Mr. Zarinebaf, a Named Plaintiff in this matter, testified that he did not believe the food his veterinarian recommended was healthy, and so did not act on the recommendation.¹⁴⁹ However, when Mr. Zarinebaf's veterinarian

¹⁴² Chernik Deposition, pp. 105:19–106:7.

¹⁴³ Consumers with lower incomes also tend to be more price-sensitive and less willing to pay higher prices. For example, the U.S. Dog Pet Food Survey found that, relative to higher income respondents, lower income respondents were more likely to report that “better pricing” was important when purchasing dog food and that higher income respondents were more likely to shop for pet food at specialty stores. See “Brand Finance U.S. Dog Pet Food Survey,” *Brand Finance*, January 13, 2017, CPF0145434–5538, at 465, 468.

¹⁴⁴ Puppies require “easy-to-digest carbohydrates,” and specific nutrients such as calcium, phosphorus, antioxidants, and vitamins C and E. Senior dogs may require a diet rich in omega-3 and fatty acids. Senior dogs also tend to be less active than puppies, so owners are advised to adjust calorie counts accordingly. See “Why You Should Tailor Your Dog's Food to Their Age and Breed,” *The Telegraph*, December 15, 2017, <https://www.telegraph.co.uk/pets/family-animals/choose-the-right-food-for-your-dog/>.

¹⁴⁵ According to an article published on Pet MD, more than 75 percent of pet owners consider the nutritional advice of their veterinarian. See “Buying & Choosing Pet Food is Priority, petMD Survey Finds,” *PetMD*, <https://www.petmd.com/dog/nutrition/buying-choosing-pet-food-priority-petmd-survey-finds>. The U.S. Dog Pet Food Survey similarly found that 57 percent of the 1,001 respondents identified their veterinarian as a “source of information [they] rel[ie]d on...to determine what to feed [their] dog,” while 28 percent identified their veterinarian as the source of information they relied on the most in their purchase decision-making process. According to the same survey, 61 percent of 1,001 respondents considered “Veterinarian's Recommendation” as “very influential” or “most influential” in deciding which dog food brand to purchase. Additionally, 46 percent of respondents who shopped in specialty pet stores indicated that they found an employee's recommendation influential. See “Brand Finance U.S. Dog Pet Food Survey,” *Brand Finance*, January 13, 2017, CPF0145434–5538, at 459, 479.

¹⁴⁶ Song Deposition, p. 32:3–10.

¹⁴⁷ Song Deposition, p. 46:2–5.

¹⁴⁸ Song Deposition, p. 40:5–10.

¹⁴⁹ Zarinebaf Deposition, pp. 43:24–44:17.

recommend he feed his dog on a rice and chicken diet when the dog was sick, he did follow this recommendation.¹⁵⁰

68. Commentary provided by respondents who participated in Mr. Boedeker's Misrepresentations Surveys demonstrate the importance of such product features when consumers decide which dog food to purchase and the unrealistic nature of Mr. Boedeker's choice tasks:

- "Would need to research pet foods before buying - labels are not that important"¹⁵¹
- "There are so very many things that go into choosing a dog food. What you gave in this survey was not ever enough to make a fair and informed decision. No where did I see actual Ingredients."¹⁵²
- "Could not read a list of the actual ingredients thus my answer that I would not purchase."¹⁵³
- "I would not purchase this brand as my dog is on limited ingredients due to his allergies."¹⁵⁴
- "My dogs currently are on a vet recommended diet, but they have had other brands like Wellness prior."¹⁵⁵
- "I choose dogwood [dog food] based on online research and ratings before I ever read a bag."¹⁵⁶
- "I basically go off of vet recos [recommendations]."¹⁵⁷
- "Dog has vet prescription food. Doesn't apply."¹⁵⁸
- "I would not change my dog food (Purina Pro Plan) unless my vet advised me to. I trust his knowledge more than what is on a bag."¹⁵⁹

¹⁵⁰ Zarinebaf Deposition, pp. 44:19–44:45:2.

¹⁵¹ Respondent ID# 53 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵² Respondent ID# 223 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵³ Respondent ID# 311 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵⁴ Respondent ID# 139 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵⁵ Respondent ID# 262 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵⁶ Respondent ID# 474 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵⁷ Respondent ID# 450 (ACANA Misrepresentations). *See* Boedeker Backup Materials.

¹⁵⁸ Respondent ID# 346 (ORIJEN Misrepresentations). *See* Boedeker Backup Materials.

¹⁵⁹ Respondent ID# 352 (ORIJEN Misrepresentations). *See* Boedeker Backup Materials.

- “My primary concerns for food content is allergen content and digestibility. I do not need fancy labels or exotic ingredients for my dogs.”¹⁶⁰
- “Unfortunately, I don’t really read the ingredients... now I should!”¹⁶¹

69. The label evaluation exercise in Mr. Boedeker’s Misrepresentations Surveys is especially problematic because the vast majority of the respondents (87.4 percent) indicated that they have not purchased or even considered purchasing a Champion product in the last three years.¹⁶²

Thus, Mr. Boedeker’s results from his Misrepresentations Surveys are based on choices made by respondents who, by and large, have no experience with Champion products and who were provided with combinations of labels and prices (as opposed to concrete product information that mattered) to make these choices.¹⁶³ Such data cannot be used to reliably estimate consumer preferences for the At-Issue Products.

70. Even if Mr. Boedeker’s Misrepresentations Surveys could sufficiently approximate real-world purchase decisions (which they did not), Mr. Boedeker only presented respondents with the packaging from two of the 11 At-Issue Products: ACANA Regionals Meadowland and ORIJEN Regional Red. The results of these two Misrepresentations Surveys cannot be reliably extrapolated to the other 9 At-Issue Products because the At-Issue Products vary substantially in terms of the type of protein (such as chicken, fish, or lamb), fat content, grain content, package size, and a multitude of additional factors.¹⁶⁴ Mr. Boedeker’s framework assumes, without basis,

¹⁶⁰ Respondent ID# 363 (ORIJEN Misrepresentations). See Boedeker Backup Materials.

¹⁶¹ Respondent ID# 291 (ACANA Omissions). See Boedeker Backup Materials.

¹⁶² Only 89 out of 653 respondents in the ORIJEN Misrepresentations Survey indicated purchasing or considering for purchase ACANA or ORIJEN products in the last three years. Only 64 out of 566 respondents in the ACANA Misrepresentations Survey indicated purchasing or considering for purchase ACANA or ORIJEN products in the last three years.

¹⁶³ Despite the emphasis on reviewing and evaluating labels, Mr. Boedeker did not screen out respondents who were taking his Misrepresentations Surveys on a mobile device. Approximately 43 percent of respondents in the Misrepresentations Surveys took the survey on a cell phone and several respondents left commentary indicating that they had trouble viewing the images. See Boedeker Backup Materials; Respondent ID# 49, ACANA Misrepresentations (“Text of dog food bag showed up too small on my smartphone”); Respondent ID# 123, ACANA Misrepresentations (“Good comparison but some things on bag were difficult to read. Blurry.”). To the extent Mr. Boedeker’s respondents made choices without the ability to properly view and evaluate the labels, their responses would not be reliable.

¹⁶⁴ See, e.g., the various dog food products available on ACANA and ORIJEN’s websites. “Six Fish,” *Orijen*, <https://orijen.ca/en-US/for-dogs-2/six-fish/ds-ori-six-fish-dog.html>; “Lamb & Apple Recipe,” *Acana*, <https://acana.com/en-US/for-dogs-1/lamb-and-apple-recipe/ds-aca-singles-lamb-apple-2020.html>; “Meadowland,” *Acana*, https://acana.com/en_US/for-dogs-1/meadowland/ds-aca-meadowlands-dog.html.

that the impact of each label is the same across all At-Issue Products for a particular brand. But, as one example, consumers may place less importance on a “regional” label on products that contain saltwater fish (which is unlikely to be “regional” to Kentucky).¹⁶⁵ Indeed, even Mr. Boedeker’s results suggest that presenting respondents with different products can result in different estimates. For example, Mr. Boedeker’s estimated decline in economic value from all of the Alleged Misrepresentations labels on the ACANA Regionals Meadowland product was 32.2 percent compared to 24.3 percent for ORIJEN Regional Red (see Figure 12 below).

Figure 12
Mr. Boedeker’s Estimated Decline in Economic Value for Alleged Misrepresentations

Label(s)	Mr. Boedeker's Estimated Decline in Economic Value	
	ACANA Regionals Meadowland	Orijen Regional Red
Biologically Appropriate	9.6%	10.8%
Fresh & Regional	15.0%	15.2%
Nourish as Nature Intended / Delivering Nutrients Naturally	11.8%	-
All Labels	32.2%	24.3%

Source: Boedeker Report, Table 14; Appendix 4

2. Omissions Surveys

71. Mr. Boedeker’s Omissions Surveys have no connection to either the At-Issue Products or consumers’ purchase experience of the At-Issue Products in the real world. Mr. Boedeker’s decision to probe respondents’ preferences based on their “favorite dry dog food” product instead of ACANA and ORIJEN products is particularly problematic. Mr. Boedeker’s Omissions Surveys generate results that are untethered to Plaintiffs’ liability theory (which is based on omissions to ORIJEN or ACANA packages) because they solicit consumer preferences on irrelevant products.

72. Mr. Boedeker’s ACANA Omissions Survey and ORIJEN Omissions Survey both instructed respondents to *assume that they were purchasing* their favorite dry dog food prior to the choice tasks:

¹⁶⁵ Silverman Song Deposition, pp. 53:21–54:4.

Next, we have a brief exercise to help us learn about your dog food purchase preferences. *Assume that you are purchasing a 25-pound bag of your favorite dry dog food.*¹⁶⁶

73. After these instructions, Mr. Boedeker asked respondents in his Omissions Surveys to view a combination of warning labels that could appear on their favorite dry dog food (that they have just been asked to assume they are purchasing) and to “select the option that matches [their] preference.”¹⁶⁷ Respondents were then asked if they would actually purchase the option with the combination of warning labels they selected (despite the initial instruction to assume they are already purchasing it).¹⁶⁸

74. Because Mr. Boedeker asked his respondents to complete their choice tasks in relation to their “favorite dry dog food” (and not in relation to ACANA or ORIEN), his results cannot be reliably used to estimate the demand for the At-Issue Products (and thereby are unconnected to Plaintiffs’ theory of damages). For example, consumers who typically purchase dog food with high amounts of seafood (*e.g.*, ORIEN Six Fish) may have different expectations regarding the level of heavy metals in their dog food compared to consumers who do not purchase dog food with seafood.¹⁶⁹ Since the purpose of the Omissions Surveys is to estimate the demand for the At-Issue Products, any data collected about non-Champion products is uninformative and irrelevant.¹⁷⁰ This would be analogous to “estimating” the demand for Ferraris by surveying

¹⁶⁶ Boedeker Zarinebaf Report, ¶ 137. Emphasis added. Note that this instruction was the same in both the ACANA and ORIEN surveys. The only difference between the ACANA Omissions Survey and the ORIEN Omissions Survey was the price levels used in the choice tasks. *See* Boedeker Zarinebaf Report, ¶¶ 136–140, Table 7, and Appendix 1, pp. 43–73, 116–146.

¹⁶⁷ Boedeker Zarinebaf Report, Appendix 1, pp. 63, 136.

¹⁶⁸ Boedeker Zarinebaf Report, Appendix 1, pp. 66, 139.

¹⁶⁹ I understand that Champion’s expert Dr. Robert H. Poppenga, a professor of clinical and diagnostic veterinary toxicology, explained that the protein ingredients used in pet food affect the levels of heavy metals present, and that it is not unusual to find heavy metals in ACANA and ORIEN because ACANA and ORIEN contain higher amounts of animal-based proteins. *See* Expert Report of Dr. Robert H. Poppenga, DVM, PhD, DABVT, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Case No. 18-cv-06951, February 19, 2021 (“Poppenga Zarinebaf Report”), pp. 8, 11–12.

¹⁷⁰ As discussed above, the vast majority of respondents (87.1 percent) indicated that they neither purchased nor considered purchasing ACANA or ORIEN in the past three years. *See* Figure 8. To the extent Mr. Boedeker assumes that his respondents would use a Champion product as their favorite dog food while they took the Omissions Surveys, he provided no basis for such an assumption. Nor did he propose a methodology that would be able to separate out respondents whose favorite dog food is a Champion product versus a non-Champion product.

those who have not considered purchasing a Ferrari and have only purchased or considered purchasing a Honda Civic.

75. Mr. Boedeker's label evaluation exercise in the Omissions Surveys is also unconnected to how consumers make dog food purchase decisions in the real world. Figure 13 below shows the warning labels Mr. Boedeker presented to his respondents. Notably, none of these warning labels are actual labels that have appeared (or are likely to appear) on a dog food package. Instead, they are all negative product descriptions (and in essence warnings), provided by Plaintiffs' counsel,¹⁷¹ about the potential presence of contaminants in dog food.

Figure 13
Labels Shown In the Omissions Surveys Choice Tasks

May contain expired ingredients . Expired ingredients are ingredients that have passed their "shelf life" date.
May contain artificial preservatives . Artificial preservatives are added to food to fight spoilage caused by bacteria, molds, fungus, and yeast.
May contain measurable amounts of heavy metals such as lead, arsenic, mercury, and/or cadmium.
May contain measurable amounts of BPA . BPA is a chemical compound used in plastic.
May contain regrinds . Regrinds are previously made dry dog food that is ground and then used in another batch of dry dog food.

76. In the real world, consumers do not decide which product to purchase by evaluating labels containing negative information and warnings about a product (and definitely not on their favorite dog food that they are told to assume they are buying). They instead typically evaluate

¹⁷¹ Boedeker Zarinebaf Report, ¶ 124, Table 7.

concrete product information across multiple dimensions (such as ingredients), and then make a selection. Mr. Boedeker did not provide information about the dog food presented beyond these negative labels, and thus, the choice tasks in the Omissions Surveys essentially amount to a “choice” between two bags of contaminants that are available at different price levels. This bears no resemblance to purchase decisions in the real world.

77. Mr. Boedeker’s respondents indeed indicated confusion at having to “choose” a dog food based only on negative warning labels and price:

- “I don’t know what dog food you’re selling, but scrap it and start over. Not only are the ingredients HORRIBLE, but the prices are insane and no normal, working class person is going to pay that much money for 25 lbs of dog food no matter what is in it.”¹⁷²
- “the choices on the food were generally bad.”¹⁷³
- “What dog food is this?! I would never want to feed my fur babies garbage like that!”¹⁷⁴
- “There weren’t many good options for a dog food I would purchase.”¹⁷⁵
- “I feel like I missed the point of this survey and none of the brands you showed are anything I currently buy my dog.”¹⁷⁶
- “I don’t want to give my dog harmful products.”¹⁷⁷
- “This was interesting since I would never purchase anyone of these dog foods. All ingredients were bad.”¹⁷⁸

78. Leaving aside the issues with the lack of realism and relevance of Mr. Boedeker’s choice task, the vague language in Mr. Boedeker’s labels and the lack of proper context for the information provided are likely to bias respondents’ choices. Conjoint survey best practices prescribe that attributes (or in the context of the Omissions Surveys, the labels) and their levels

¹⁷² Respondent ID# 48 (ACANA Omissions). *See* Boedeker Backup Materials.

¹⁷³ Respondent ID# 178 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁷⁴ Respondent ID# 281 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁷⁵ Respondent ID# 407 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁷⁶ Respondent ID# 57 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁷⁷ Respondent ID# 518 (ORIEN Omissions). *See* Boedeker Backup Materials.

¹⁷⁸ Respondent ID# 574 (ORIEN Omissions). *See* Boedeker Backup Materials.

must be defined clearly and concretely.¹⁷⁹ Consider, for example, the warning label Mr. Boedeker used to estimate the impact regarding the alleged presence of heavy metals. As shown in Figure 14 below, Mr. Boedeker's heavy metal warning label consisted of two levels. Respondents either saw the entire heavy metals warning label or a completely blank label.¹⁸⁰

Figure 14
Heavy Metals Warning Label and Blank Label Used In Omissions Surveys¹⁸¹



79. Mr. Boedeker described the alleged presence of heavy metals using the qualifier, “May contain.” The “May contain” language is vague as to the actual amount of heavy metals present. It is also devoid of context about where the “heavy metals” came from, and thus respondents could not know whether they were naturally occurring in the raw materials used to make the products or were added in by the manufacturer during the manufacturing process. Accordingly, Mr. Boedeker cannot ensure that his respondents were answering questions with an understanding that was tied to the facts of the case.

80. Given the vagueness of the language Mr. Boedeker used, all of the following scenarios (and many others) could accurately be interpreted as “May contain measurable amounts of heavy metals” by any given respondent:

¹⁷⁹ Orme (2014), p. 54 (“Attribute descriptions should be concise statements with concrete meaning. Avoid using ranges to describe a single level of an attribute, such as ‘weighs 3 to 5 kilos.’ Rather than leaving the interpretation to the respondent, it would be better to specify ‘weighs 4 kilos.’ Levels such as ‘superior performance’ also leave too much in question. What does ‘superior performance’ mean? Try to use specific language to quantify (if possible) the exact meaning of the level.”); Allenby, G., N. Hardt, and P. Rossi (2019), “Economic Foundations of Conjoint Analysis,” in *Handbook of the Economics of Marketing*, Vol. 1, J.-P. H. Dubé and P. E. Rossi, eds. Oxford, UK: North-Holland, 151–192 at 166 (“Of critical concern in designing a conjoint survey is to ensure that questions are posed in an unambiguous and easy-to-understand manner. Specifically, the conjoint attributes and their levels should be specified so as not to bias preference measurement and introduce unnecessary measurement error due to confusion or lack of understanding.”).

¹⁸⁰ Even the completely blank label is ambiguous and unclear as to how respondents should interpret the meaning. The Omissions Surveys instruct respondents that, “[i]f a cell is BLANK, then no labels regarding the attribute are found on your favorite dog food.” The instructions do not clarify whether this means (i) that there are zero heavy metals in the dog food, (ii) that the dog food still “may contain measurable amounts of heavy metals” but there is no label on the packaging, or (iii) some other interpretation entirely. See Boedeker Zarinebaf Report, Figures 8, 9.

¹⁸¹ Boedeker Zarinebaf Report, Appendix 1, pp. 66, 139.

- The product contains absolutely no amounts of heavy metals;
- The product contains amounts of heavy metals at levels far below the Maximum Tolerable Levels established by the National Resource Council and used by the FDA and similar European Union regulatory maximum levels for heavy metals in pet foods and poses no risk to dogs;
- The product contains excessive amounts of heavy metals and the consumption of the product could harm the health of your dog over time;
- The product contains excessive amounts of heavy metals and the consumption of one serving will be fatal.

81. However, not all of these interpretations are consistent with the allegations in this matter. I understand that ACANA and ORIJEN products contain high levels of animal-based protein content (e.g., meat, fish, etc.), and Champion's expert Dr. Robert H. Poppenga, a professor of clinical and diagnostic veterinary toxicology, concluded that heavy metals occur in nature and the environment, are routinely found in pet foods at safe levels, and that "the levels of naturally occurring heavy metals in ACANA and ORIJEN dog food diets do not present a health risk to dogs."¹⁸² According to Dr. Poppenga, all competitor dog foods contained some measurable amount of heavy metals.¹⁸³ Yet Mr. Boedeker did not inform his respondents that his heavy metals warning label would apply to most, if not all, of the dog food products on the market. Relatedly, according to Dr. Poppenga, BPA is ubiquitous and commonly found in pet foods and human foods.¹⁸⁴ Yet Mr. Boedeker did not inform his respondents that his BPA warning label ("May contain measureable amounts of BPA. BPA is a chemical compound used in plastic.") would apply to many dog food products on the market. Indeed, at his deposition, Mr. Boedeker acknowledged

¹⁸² Poppenga Zarinebaf Report, pp. 8, 41.

¹⁸³ Poppenga Zarinebaf Report, Table 8. Note that each of these competitor brands in the Poppenga Zarinebaf Report were used in the list of qualifying brands in Mr. Boedeker's surveys. *See* Boedeker Zarinebaf Report, fn 46.

¹⁸⁴ Poppenga Zarinebaf Report, p. 29. *See also*, Deposition of Sean P. Callan, Ph. D, May 9, 2019, p. 59:2-16 ("Q. I guess, if we go back to all the different several hundred dry-kibble dog food diets that have been tested for BPA by Ellipse Analytics, you had testified that a third had BPA. And am I right that, when you said a third had BPA, that meant a third had parts per billion of at least 30? A. I believe that is correct, yes, quantifiable levels under our method. Q. So of the two-thirds, approximately, that did not have a parts per billion of above 30, is it possible that they would have had some detectable level of BPA at less than 30 parts per billion? A. It is possible, yes.").

that his survey did not provide a definition of what constitutes a “measurable amount” of heavy metals or BPA, and that the interpretation of these statements would be “up to the consumer.”¹⁸⁵

82. Mr. Boedeker also failed to provide proper context regarding the expired ingredients warning label and the regrinds warning label. These warning labels described the alleged presence of expired ingredients and regrinds, respectively, as:

May contain expired ingredients. Expired ingredients are ingredients that have passed their ‘shelf life’ date.

May contain regrinds. Regrinds are previously made dry dog food that is ground and then used in another batch of dry dog food.¹⁸⁶

These descriptions are vague as to (i) the actual frequency with which ACANA or ORIJEN products contain expired ingredients or regrinds, (ii) what these practices entail, (iii) whether they apply to many or most dog food products, and (iv) whether the alleged use of expired ingredients or regrinds poses any safety risks. According to Christopher Milam (“Mr. Milam”), the Director of Ingredient Innovation and Supplier Partnerships at Champion, the use of regrinds is a standard food processing industry practice where kibble are set aside for partial re-processing for reasons unrelated to safety, such as moisture content or irregularities in the kibble shape.¹⁸⁷ I understand from Mr. Milam that the amount of regrinds used in Champion products, if any at all, varies by production run and is intended to displace at most 5 percent of the dry ingredients (*e.g.*, lentils, beans, and other dry carbohydrates), and does not displace any wet ingredients (*e.g.*, fresh or raw meat).¹⁸⁸ I further understand that the inclusion of expired ingredients in Champion products (*i.e.*, the use of an ingredient that has passed an internal expiration date set by

¹⁸⁵ Boedeker Song Deposition (Rough), p. 26:22–27:12, 35:5–36:1. Mr. Boedeker wrongly claimed at his deposition that leaving the interpretation of this heavy metals label up to the consumer “mimics the real life situation.” In a world where Champion were to disclose information about “measurable amounts” of heavy metals (or any of the other allegedly omitted content) in its products, the company would no doubt provide appropriate context, for example, by clarifying that these “measurable amounts” are naturally occurring and are well within limits that are safe for dogs. See Poppenga Zarinebaf Report, p. 41.

¹⁸⁶ Boedeker Zarinebaf Report, Table 7.

¹⁸⁷ Declaration of Christopher Milam, *Kellie Loeb et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 2:18-cv-00494-JPS, December 7, 2018, ¶ 25.

¹⁸⁸ Declaration of Christopher Milam, *Scott Weaver et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 2:18-cv-1996-JPS, March 3, 2020, ¶¶ 32–33.

Champion or the ingredient supplier, similar to a “best-used-by” date) is rare,¹⁸⁹ and only occurs when it is safe to do so.¹⁹⁰ Yet Mr. Boedeker left the interpretation of this seemingly negative product information up to his respondents without any proper context.¹⁹¹

83. The unrealistic nature of the choice tasks, the lack of proper context, and the negative nature of the product information in Mr. Boedeker’s Omissions Surveys render these surveys susceptible to negativity bias in particular. Negativity bias describes the phenomenon where negative traits often make a stronger impression than positive traits, negative information is more influential in forming opinions, and negative opinions are quicker to form and are harder to change than positive ones.¹⁹² Indeed, respondents in Mr. Boedeker’s Omissions Surveys indicated that they would *not* actually purchase the majority of the products they selected. Across a total of 17,340 choice tasks in the Omissions Surveys, 61.0 percent of the choice tasks resulted in the respondent indicating that they would not actually purchase the product they indicated that they preferred.¹⁹³ Figure 15 shows the proportion of respondents on the Omissions Surveys who indicated that they would not purchase their preferred option on at least half of the choice tasks they completed, and the proportion of respondents who indicated they would not purchase their preferred options on all of the choice tasks.¹⁹⁴ In the ORIEN Omissions Survey, 67.5 percent of respondents indicated that they would not purchase the product they selected on at least half of the choice tasks they saw, and 25.0 percent indicated they would not purchase the

¹⁸⁹ Deposition of Jeff Johnston, June 24, 2020, pp. 104:16–105:24, 107:25–108:15.

¹⁹⁰ Declaration of Christopher Milam, *Kellie Loeb et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 2:18-cv-00494-JPS, December 7, 2018, ¶¶ 28–29; Declaration of Christopher Milam, *Scott Weaver et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 2:18-cv-1996-JPS, March 3, 2020, ¶¶ 35–37.

¹⁹¹ Boedeker Song Deposition (Rough), p. 36:2–11.

¹⁹² See, e.g., Anderson, N. H. (1965), “Averaging Versus Adding as a Stimulus-Combination Rule in Impression Formation,” *Journal of Experimental Psychology*, 70, 4, 394–400; Skowronski, J. J. and D. E. Carlston (1989), “Negativity and Extremity Biases in Impression Formation: A Review of Explanations,” *Psychological Bulletin*, 105, 1, 131–142; Baumeister, R. F., E. Bratslavsky, C. Finkenauer, and K. D. Vohs (2001), “Bad Is Stronger Than Good,” *Review of General Psychology*, 5, 4, 323–370, at p. 323 (“Taken together, these findings suggest that bad is stronger than good, as a general principle across a broad range of psychological phenomena.”). Other research streams have also supported the idea of greater weighting of negative information, e.g., the Prospect Theory notion that “losses loom larger than gains.” See Kahneman, D. and A. Tversky (1979), “Prospect Theory: An Analysis of Decision Under Risk,” *Econometrica*, 47, 2, 263–292. Researchers in conjoint settings have also documented evidence of respondents placing greater weight on negative attributes. See Huber, J. (1997), “What We Have Learned from 20 Years of Conjoint Research: When to Use Self-Explicated, Graded Pairs, Full Profiles or Choice Experiments,” *Sawtooth Software Research Paper Series*, 1–15 at 7–8.

¹⁹³ See work paper.

¹⁹⁴ After each choice task, respondents were asked “would you purchase the option you selected above?” See Boedeker Zarinebaf Report, ¶ 126.

product they selected on *all* of the choice tasks they saw. The corresponding figures on the ACANA Omissions Survey are 66.0 percent and 17.7 percent.

Figure 15
Percent of Respondents in Omissions Surveys Who Would Not Buy their Preferred Option

Survey	Total Respondents	Percent of Respondents Who Selected "Would Not Buy" For At Least Half of the Choice Tasks	Percent of Respondents Who Always Selected "Would Not Buy"
ORIEN Omissions	585	67.5%	25.0%
ACANA Omissions	571	66.0%	17.7%
Total	1,156	66.8%	21.4%

Source: Boedeker Report and Backup Materials

VIII. Mr. Boedeker’s “Market Simulation” Approach Cannot Estimate a Change in Demand Attributable to the Alleged Misrepresentations and Omissions, and His Estimates of Economic Loss Cannot Be Combined Across His Conjoint Surveys, Lack External Validity, and Are Internally Inconsistent

A. Mr. Boedeker Cannot Reliably Estimate a Change in Demand Attributable to the Alleged Misrepresentations and Omissions

84. According to Mr. Boedeker’s own theoretical framework for economic loss, the change in demand he attempted to measure is the difference between the demand for the At-Issue Product in the Actual World and the demand for the At-Issue Product in the But-for World (*i.e.*, without the Alleged Misrepresentations or Omissions).¹⁹⁵ For example, according to Mr. Boedeker’s theoretical framework, quantifying the change in demand attributable to the heavy metals warning label requires estimating the demand for the At-Issue Product as-is and comparing it to the demand for the At-Issue Product with the heavy metals warning label added.¹⁹⁶ However, Mr. Boedeker’s so-called “market simulation” approach did not estimate the demand for the At-Issue Product as-is. Nor did his “market simulation” approach estimate the demand for the At-Issue Product with the heavy metals warning label added.

85. Instead, Mr. Boedeker first calculated the average utility, across all respondents, for each possible combination of Alleged Misrepresentations labels, and, separately, each possible combination of Alleged Omissions labels. Mr. Boedeker then used these average utilities to

¹⁹⁵ Boedeker Zarinebaf Report, ¶¶ 41–42.

¹⁹⁶ Boedeker Zarinebaf Report, ¶ 87.

calculate a “market share” for each combination of labels. Mr. Boedeker then implemented a regression model with the log of price as the dependent variable, and indicator variables for each label and the log of “market share” for each label as independent variables. He used the indicator variable coefficients from his regression model (or the sum of coefficients in the case of multiple Alleged Misrepresentations or Omissions) as his estimates of economic loss attributable to the Alleged Misrepresentations or Omissions.¹⁹⁷

86. Again, by Mr. Boedeker’s own theoretical framework, the economic loss should be the difference between the demand for the At-Issue Product in the Actual World and the demand for the At-Issue Product in the But-for World (*i.e.*, a world where the At-Issue Product does not have the Alleged Misrepresentations or Omissions).¹⁹⁸ However, Mr. Boedeker’s model does not estimate any demand curves, let alone the difference between Actual and But-For demand curves. Instead, *it models the average effect of a given label on willingness to pay across all respondents and all possible combinations of labels*. This average is not equivalent to demand, or, as Mr. Boedeker puts it, “the willingness-to-pay of the marginal consumer,”¹⁹⁹ and there is no reason to believe that the two would be equal.

87. Furthermore, Mr. Boedeker’s “market simulation” approach compares products that do not resemble the At-Issue Products in the Actual World or in the But-for World. The At-Issue Products cannot be characterized as a bundle of select warning labels (or as a bundle of select marketing labels) as Mr. Boedeker has done in his regression model. The At-Issue Products have concrete product attributes, such as flavor, brand, source of protein, and meat content, each of which Mr. Boedeker failed to model in his Conjoint Surveys. As such, Mr. Boedeker cannot accurately characterize the At-Issue Product in the Actual World or in the But-for World. Nor can he reliably estimate a change in demand for the At-Issue Products attributable to a specific label, Alleged Omission, or combination of labels and/or Alleged Omissions.

88. It is important to note that, as a marketing academic, I have never encountered a “market simulation” using conjoint data that models a change in willingness to pay using a regression model based on average utilities applied to all possible conjoint feature combinations, such as the one used by Mr. Boedeker. Nor have I encountered anything similar, in academic research or in

¹⁹⁷ Boedeker Backup Materials, “BOEDEKER000148 nb.”

¹⁹⁸ Boedeker Zarinebaf Report, ¶¶ 41–42.

¹⁹⁹ Boedeker Zarinebaf Report, ¶ 43.

an industry setting. In his report, Mr. Boedeker did not provide any citation to academic literature to support his proposed approach. Instead, he attempted to justify his use of every combination of the labels as a robustness check, namely, “to assess the robustness of the demand curve estimation under a variety of market conditions.”²⁰⁰ But this explanation simply does not make sense when none of the so-called “market conditions” (*i.e.*, combinations of labels) bears any resemblance to the real-world.

B. Mr. Boedeker’s Conjoint Surveys Cannot Reliably Estimate Economic Loss for an At-Issue Product with Both Alleged Misrepresentations and Alleged Omissions and Should Not Be Used to Do So

89. Mr. Boedeker’s proposed methodology for combining his economic loss estimates from his Misrepresentations Surveys and his Omissions Surveys is incorrect and inconsistent with Plaintiffs’ theory of harm. The Third Amended Complaint alleges that Champion’s packaging contained misleading claims (*i.e.*, Alleged Misrepresentations) *and* that important information was omitted (*i.e.*, Alleged Omissions).²⁰¹ Plaintiffs allege they were harmed because they “would not have paid the price premium they paid” for the At-Issue Products had they known of the Alleged Misrepresentations and Omissions.²⁰² And in his report, Mr. Boedeker stated that his assignment was to quantify the economic loss “attributable to the purchase of a product advertised with misrepresentations *and* omissions.”²⁰³ Thus, Mr. Boedeker’s task presumably involves providing a reliable methodology that can be used to compute class-wide damages for

²⁰⁰ Boedeker Zarinebaf Report, ¶ 89 (“To assess the robustness of the demand curve estimation under a variety of market conditions, I performed a comprehensive market simulation study. In my market simulations, I used all variations of the attributes and levels defined in the conjoint study to test if economic damages exist”).

²⁰¹ *See, e.g.*, Third Amended Complaint, ¶ 3 (“Defendants’ packaging claims *and* fraudulent omissions injured consumers”). *Emphasis added.* Third Amended Complaint, p. 17, title to Section III (“Why packaging claims *and* omissions were misleading”). *Emphasis added.* Third Amended Complaint, ¶ 185 (“Defendants’ Packaging Claims *and* material omissions were misleading to consumers...”). *Emphasis added.* Third Amended Complaint, ¶¶ 195–196 (“Defendants violated Illinois laws by negligently, recklessly, and/or intentionally misrepresenting that the Contaminated Dog Food conformed to the following packaging claims: [Delivering Nutrients Naturally; Biologically Appropriate™; and Fresh Regional Ingredients]. Defendants *also* owed consumers a legal duty to disclose that the Contaminated Dog Food contained and/or had a material risk of containing Heavy Metals, a material amount of non-fresh ingredients, a material amount of non-regional ingredients, BPA, pentobarbital and/or other ingredients and contaminants that did not conform to Defendants’ packaging claims.”). *Emphasis added.*

²⁰² Third Amended Complaint, ¶ 236.

²⁰³ Boedeker Zarinebaf Report, ¶ 12. *Emphasis added.*

At-Issue Products with both Alleged Misrepresentations *and* Alleged Omissions. Mr. Boedeker did not provide this. Instead, Mr. Boedeker proposed simply adding the median economic losses from his Misrepresentations Surveys and his Omissions Surveys to determine total economic loss. This approach is incorrect for two reasons.

90. First, were one to add Mr. Boedeker's estimated median economic losses across the Misrepresentations and Omissions Surveys, his results imply economic losses *greater than* 100 percent. For example, according to Mr. Boedeker's Appendix 4, an ACANA product featuring all of the Alleged Misrepresentations would have a median economic loss of 32 percent and an ACANA product featuring all of the Alleged Omissions would have a median economic loss of 85 percent.²⁰⁴ Adding these numbers, as proposed by Mr. Boedeker, would yield a nonsensical result, namely that ACANA products would have sold at a negative price in the But-for World. In other words, under this scenario, Champion would *pay* consumers to receive these ACANA products.²⁰⁵ The inappropriateness of Mr. Boedeker's proposed methodology is further evidenced by the fact that his estimate of total class-wide damages exceeds total retail sales of the At-Issue Products in Illinois according to his calculations.²⁰⁶ Given that Proposed Class Members received dog food and presumably fed it to their dogs (without alleged harm to the dogs, as I understand it), Mr. Boedeker's de facto full-refund model is inappropriate.

91. Furthermore, I understand that Plaintiffs use the Alleged Omissions as support for their claims that the Alleged Misrepresentations were misleading. For example, Plaintiffs allege that "Defendants' Packaging Claims of Biologically Appropriate™ and 'Fresh Regional Ingredients' were misleading *because* the Contaminated Dog Food contained and/or had a material risk of containing Heavy Metals."²⁰⁷ One would assume, based on Plaintiffs' allegations and theory of liability, that the remedy in the But-for World would involve either removing the Alleged Misrepresentations from the packaging *or* adding labels addressing the Alleged Omissions, but not both. Thus, a calculation such as the one proposed by Mr. Boedeker that adds results across

²⁰⁴ Boedeker Zarinebaf Report, Appendix 4.

²⁰⁵ Mr. Boedeker claimed in his deposition that an economic loss of greater than 100 percent is not problematic, but is instead evidence of an economic "bad," or product that consumers would need to be paid to acquire. This argument is completely illogical, as there is no But-for World in which Champion would pay consumers to take their products. *See* Boedeker Song Deposition (Rough), pp. 129:10–130:5.

²⁰⁶ Boedeker Zarinebaf Report, Table 16.

²⁰⁷ Third Amended Complaint, ¶ 68. Emphasis added. *See also* Third Amended Complaint ¶¶ 76, 95, 138–141, 183–184.

the Misrepresentations and Omissions Surveys would double count the alleged harm and overstate damages claimed by Plaintiffs.

C. Mr. Boedeker's Estimates of Economic Loss Lack External Validity and Are Internally Inconsistent

92. Mr. Boedeker's estimates of the decline in economic value for ACANA and ORIJEN lack external validity and do not pass a basic sanity check. In Figure 16 below, I use Mr. Boedeker's estimates from Table 14 and Appendix 4 of his report to calculate what his percent decline in value implies for the dollar value of ACANA and ORIJEN products if one were to take Mr. Boedeker's framework and estimates at face value.

Figure 16
Estimated Declines in Value From Mr. Boedeker's Surveys

	Median Price Level Used in Surveys^[1]	Mr. Boedeker's Estimated Decline in Economic Value	Mr. Boedeker's Estimated Economic Value With Label(s)^[2]
ACANA Omissions Survey			
Heavy Metals Label	\$66.99	58.4%	\$27.85
BPA Label	\$66.99	39.9%	\$40.25
Regrinds Label	\$66.99	14.6%	\$57.19
Expired Ingredients Label	\$66.99	28.3%	\$48.03
All Omissions Labels	\$66.99	84.7%	\$10.24
ORIJEN Omissions Survey			
Heavy Metals Label	\$80.99	43.4%	\$45.82
BPA Label	\$80.99	28.8%	\$57.67
Regrinds Label	\$80.99	9.7%	\$73.13
Expired Ingredients Label	\$80.99	20.4%	\$64.44
All Omissions Labels	\$80.99	71.1%	\$23.45
ACANA Misrepresentations Survey			
Biologically Appropriate Label	\$66.99	9.6%	\$60.57
Fresh & Regional Label	\$66.99	15.0%	\$56.94
Fresh Label	\$66.99	14.0%	\$57.62
Regional Label	\$66.99	12.1%	\$58.86
Delivering Nutrients Naturally Label	\$66.99	11.8%	\$59.09
All Misrepresentations Labels	\$66.99	32.2%	\$45.41
ORIJEN Misrepresentations Survey			
Biologically Appropriate Label	\$65.99	10.8%	\$58.86
Fresh & Regional Label	\$65.99	15.2%	\$55.99
Fresh Label	\$65.99	15.2%	\$55.97
Regional Label	\$65.99	13.3%	\$57.22
All Misrepresentations Labels	\$65.99	24.3%	\$49.94

Source: Boedeker Report and Backup Materials

Note:

[1] Median price levels are based on the price levels used by Mr. Boedeker in his surveys. See Boedeker Report, Tables 5–7. Note that all surveys featured a 25lb bag of dog food with the exception of the ORIJEN Misrepresentations Survey, which featured a 13lb bag.

[2] Calculated by subtracting ("Median Price Level Used in Surveys" times "Mr. Boedeker's Estimated Decline in Economic Value") from the "Median Price Level Used in Surveys." See Boedeker Report, Table 14 and Appendix 4.

93. Mr. Boedeker estimates that adding all four Omissions Labels to a 25-pound bag of ACANA dry dog food would cause its economic value to decline from \$66.99 to \$10.24. This does not pass a basic sanity check. The lowest priced, similarly-sized dry dog food on

Chewy.com has a price that is almost 2 times higher than \$10.24.²⁰⁸ Thus, Mr. Boedeker is estimating that ACANA products would go from one of the most expensive products on the market to being substantially cheaper than the cheapest similarly sized package of dry dog food available on a major dog food website.

94. Furthermore, Mr. Boedeker estimates that adding a warning label about heavy metals to a package of ACANA dry dog food would cause a 58 percent decline in value, and that adding a warning about BPA would cause a 40 percent decline in value. This means that Mr. Boedeker is estimating that over one third of the value of ACANA products comes from not having BPA, and that over half of their value comes from not having heavy metals. This is entirely unrealistic given that most dry dog food products on the market contain heavy metals and BPA.²⁰⁹

95. Mr. Boedeker also asserted that his damages estimates are reasonable because the estimated decline in value of Champion products from the Alleged Misrepresentations and Omissions is comparable to the prices of non-premium dog food, specifically, Pedigree dog food.²¹⁰ This comparison is not appropriate because premium dog foods (such as ACANA or ORIJEN) differ substantially from non-premium dog foods (such as Pedigree) in dimensions that are unrelated to the Alleged Misrepresentations and Omissions. By making such a comparison, Mr. Boedeker implicitly assumes that the entire price differential between Champion and Pedigree is due to the labels on the product packaging, as opposed to differences in concrete product features, such as the ingredients used.²¹¹ To give just a few examples, a comparison of

²⁰⁸ The lowest price dog food in the 21–30-pound range on Chewy.com was Rachael Ray Nutrish Just 6 Natural Grain-Free Turkey Meal & Pea Limited Ingredient Diet Dry Dog Food, which sold at \$17.99 for a 24-pound bag. Note also that Rachel Ray Nutrish Just 6 also has a lower crude protein content than Champion products (21 percent, compared to 33 percent in ACANA Regionals Meadowlands, for example), and its main ingredient is turkey meal, compared to deboned chicken and deboned turkey used in ACANA Regionals Meadowlands. See “Rachael Ray Nutrish Just 6 Natural Grain-Free Turkey Meal & Pea Limited Ingredient Diet Dry Dog Food,” *Chewy*, <https://www.chewy.com/rachael-ray-nutrish-just-6-natural/dp/170595>; “Meadowland,” *Acana*, <https://acana.com/en-US/for-dogs-1/meadowland/ds-aca-meadowlands-dog.html>.

²⁰⁹ Poppenga Zarinebaf Report, pp. 21, 29–30.

²¹⁰ Boedeker Zarinebaf Report, ¶ 170. Mr. Boedeker estimates the price of a 25-pound bag of Pedigree dog food to be \$16.30 and then implies that ACANA’s “78% price premium over a Pedigree product” is roughly equivalent to the price premium due to the alleged omission(s) and/or misrepresentation(s). Note that Mr. Boedeker does not provide any reference to calculations in his model for any set of omissions(s) and/or misrepresentation(s) that would yield a 78 percent price premium.

²¹¹ Even Mr. Silverman acknowledged at his deposition that “in every food product I ever worked with the higher the ingredient cost or the greater the ingredient cost, the higher the cost of the ultimate cost of the product to

ORIJEN and Pedigree dog foods on PawDiet.com indicates that ORIJEN dog foods contain 42.7 percent crude protein, compared to Pedigree dog foods, which contain only 25.6 percent crude protein.²¹² PawDiet.com also lists 27 “controversial” ingredients (*e.g.*, powdered cellulose or high fructose corn syrup) and ten “harmful” ingredients (*e.g.*, food coloring or propylene glycol) found in Pedigree and not in ORIJEN.²¹³ Neither ORIJEN’s protein content nor these Pedigree-only ingredients are related to the allegations in this matter and presumably each of these explain some of the difference in market prices between a Pedigree product and an ORIJEN product.²¹⁴

96. As a further sanity check on Mr. Boedeker’s results, I examined whether Mr. Boedeker’s estimates across the ACANA and ORIJEN brands were internally consistent. Given that Mr. Boedeker provided no information about ACANA or ORIJEN on his Omissions Surveys (and only asked about the respondent’s “favorite dog food”),²¹⁵ one would expect Mr. Boedeker’s estimates for the same Alleged Omission(s) to be similar across his ACANA and ORIJEN surveys. However, they are not. For example, for a warning label about heavy metals, Mr. Boedeker’s estimated decline for ACANA is 15 percentage points (or 35 percent) higher than the estimated decline for ORIJEN. As another example, for a warning label about expired ingredients, Mr. Boedeker’s estimated decline for ACANA is more than 7 percentage points (or 39 percent) higher than the estimated decline for ORIJEN. *See* Figure 17. Nowhere in his report does Mr. Boedeker explain why the same labels generate such different price premiums across ACANA and ORIJEN products.

consumers” and that the comparison of ORIJEN to Pedigree is “an apples to oranges comparison, particularly based on the ultimate price point of the products.” *See* Silverman Song Deposition, pp. 133:1–134:3.

²¹² According to PawDiet.com, “[p]rotein is an extremely important part of your dog’s diet. Without sufficient protein, dogs can develop a wide-range of serious health problems ... Orijen dry dog foods clearly provides more protein than Pedigree. In fact, the difference between the protein content is roughly 17.16 percent, which is a significant amount.” *See* “Orijen vs. Pedigree,” *PawDiet.com*, <https://www.pawdiet.com/compare/orijen-vs-pedigree-pet-food-brand-comparison/>.

²¹³ *See* “Orijen vs. Pedigree,” *PawDiet.com*, <https://www.pawdiet.com/compare/orijen-vs-pedigree-pet-food-brand-comparison/>.

²¹⁴ At his deposition, Mr. Boedeker agreed that Pedigree “is not a premium dog food, was not a comparable premium dog food to Champion” but did not provide any justification for why one should expect Champion products to be priced similarly to Pedigree in the But-For World. *See* Boedeker Song Deposition (Rough), pp. 122:3–123:10.

²¹⁵ The only difference between the ACANA Omissions Survey and the ORIJEN Omissions Survey was the price levels used in the choice tasks. *See* Boedeker Zarinebaf Report, ¶¶ 137–140, Table 7, and Appendix 1, pp. 43–73, 116–146.

Figure 17
Mr. Boedeker's Estimated Decline in Economic Value for Alleged Omissions

Label(s)	Mr. Boedeker's Estimated Decline in Economic Value	
	ACANA	ORIJEN
Expired Ingredients	28.3%	20.4%
Heavy Metals	58.4%	43.4%
BPA	39.9%	28.8%
Regrinds	14.6%	9.7%
All Labels	84.7%	71.1%

Source: Boedeker Report, Table 14; Appendix 4

IX. Mr. Boedeker's Expectation Survey Is Fundamentally Flawed and Cannot Provide Reliable Information On Consumer Expectations

97. In addition to his conjoint surveys, Mr. Boedeker conducted what he refers to as an "Expectation Survey." Mr. Boedeker stated that he conducted his Expectation Survey "1) to measure consumer perception regarding the misrepresentations and omissions at issue; and 2) to assess the extent to which those misrepresentations and omissions have a material impact on consumer purchase interest."²¹⁶ The Expectation Survey cannot address either of those goals due to its fundamentally flawed design and unreliable results.

A. Overview of Mr. Boedeker's Expectation Survey

98. The Expectation Survey sample consisted of 500 respondents and used the same screening criteria as those used in Mr. Boedeker's Conjoint Surveys.²¹⁷ After qualifying for the survey, respondents in the Expectation Survey were randomly assigned to see an image of a 25-pound package of ACANA Regionals Meadowland or an image of a 25-pound package of ORIJEN Regional Red.²¹⁸ Respondents were also shown the price of the product they saw. Figure 18 provides a screenshot of what respondents assigned to see the ORIJEN product were shown in Mr. Boedeker's Expectation Survey.²¹⁹

²¹⁶ Boedeker Zarinebaf Report, ¶ 173.

²¹⁷ Boedeker Zarinebaf Report, ¶¶ 175–176.

²¹⁸ Boedeker Zarinebaf Report, ¶ 177.

²¹⁹ Boedeker Zarinebaf Report, Appendix 1, p. 316.

Figure 18**ORIJEN Product Shown to Respondents in the Expectation Survey**

Please examine the image below of the front of a 25-pound dry dog food bag. The retail price of this dog food is \$114.99/bag.



Roll over image to zoom.

Please confirm that you have reviewed the dog food image above.

Yes, I reviewed the dog food bag.

No, I did not review the dog food bag.

99. Respondents were then shown a similar screen where they were asked to review the back of the ORIJEN or ACANA product that they were assigned to see.²²⁰ Finally, respondents were then asked 16 agree/disagree questions, and 12 questions where they were asked to indicate whether a given label or statement made them more or less likely to purchase the Champion product they saw.²²¹

100. Mr. Boedeker did not provide any explanation in his report of how questions were ordered in his Expectation Survey. The screenshots he provided in Appendix 1 of his report appear to indicate that respondents assigned to see the ORIJEN product saw the questions in a different order than respondents assigned to see the ACANA product.²²² Mr. Boedeker testified at his deposition that the order of some questions were randomized, however, he was not able to provide details on the randomization or point to where the randomization was described in his

²²⁰ Boedeker Zarinebaf Report, Appendix 1, pp. 318, 337.

²²¹ Boedeker Zarinebaf Report, Appendix 1, pp. 321–334, 340–355.

²²² Boedeker Zarinebaf Report, Appendix 1, pp. 316–355.

report.²²³ Given the lack of information, I proceed with the order that questions are presented for the ORIJEN product screenshots shown in Mr. Boedeker's Appendix 1.²²⁴

101. Respondents were first shown the prompt "From the '**Regional**' statements on the dog food shown, I would expect that..." and asked to indicate, on a 5-point scale from "Strongly Disagree" to "Strongly Agree," whether they agreed or disagreed with each of the three statements.²²⁵ Figure 19 presents a screenshot of Mr. Boedeker's prompt and questions related to the "Regional" statement.²²⁶

Figure 19
Agree/Disagree Questions Related to "Regional" Statement

From the "**Regional**" statements on the dog food shown, I would expect that...

The dog food shown does not contain imported ingredients.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't know/ Unsure
-------------------	----------	----------------------------	-------	----------------	--------------------

Each ingredient in the dog food shown is from the region where the food is made unless specifically stated otherwise on the packaging.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't know/ Unsure
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The dog food shown does not contain any grains.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't know/ Unsure
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102. Respondents were then shown a similar prompt for "Biologically Appropriate" and asked to answer five Agree/Disagree Questions, followed by a prompt for "Fresh" and asked to answer four Agree/Disagree Questions, followed by a prompt for either "Nourish as Nature Intended" (for respondents who saw the ORIJEN product) or "Delivering Nutrients Naturally" (for respondents who saw the ACANA product) and asked to answer four Agree/Disagree

²²³ Boedeker Colangelo Deposition, pp. 57:2–59:3.

²²⁴ Boedeker Zarinebaf Report, Appendix 1, pp. 316–334.

²²⁵ Boedeker Zarinebaf Report, Appendix 1, pp. 321, 342.

²²⁶ Boedeker Zarinebaf Report, Appendix 1, p. 322.

Questions.²²⁷ In total, respondents saw 16 Agree/Disagree Questions. Again, due to Mr. Boedeker's failure to provide basic details about the implementation of his survey, it is not clear whether these questions were shown consecutively or in a randomized order across respondents.²²⁸

103. Respondents were then shown seven labels and were asked for each label whether the label made the respondents "more or less likely to purchase the dog food shown?"²²⁹ Mr. Boedeker does not explain how he decided which labels to include—in fact, one of the labels for the ORIJEN product and one of the labels for the ACANA product are not at issue. For each label, respondents were provided with a five-point scale from "Far less likely" to "Far more likely." An example of a survey screen with two of these labels for the ORIJEN product is shown in Figure 20.²³⁰

²²⁷ Boedeker Zarinebaf Report, Figures 12–15, Appendix 1, pp. 321–334, 340–355. Note that the screenshots of Mr. Boedeker's Expectation Survey do not include an image of the "Nourish as Nature Intended" question; however, based on Figure 15 in his report it appears that this question was asked.

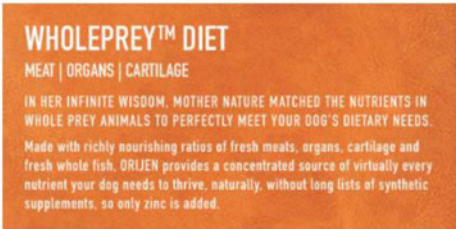
²²⁸ Boedeker Colangelo Deposition, pp. 57:2–59:3.

²²⁹ Respondents assigned to see the ORIJEN product saw labels for "Biologically Appropriate," "Wholeprey Diet," "Low Temperature," "Nourish as Nature Intended," "Fresh Ingredients," "Regional Ingredients," and "Fresh Regional Ingredients." Respondents assigned to see the ACANA product saw labels for "Biologically Appropriate," "Wholeprey Diet," "High Palatability," "Delivering Nutrients Naturally," "Fresh Ingredients," "Regional Ingredients," and "Fresh Regional Ingredients." See Boedeker Zarinebaf Report, Figures 16, 22. My understanding is that the labels about "Wholeprey Diet," "Nourish as Nature Intended," "High Palatability," and "Low Temperature" are not at issue in this matter.

²³⁰ Boedeker Zarinebaf Report, Appendix 1, p. 332.

Figure 20
Purchase Intent Questions Based on Labels

All else equal, does each label below make you more or less likely to purchase the dog food shown?
 (For each statement, please select the one response closest to your opinion)



WHOLEPREY™ DIET
 MEAT | ORGANS | CARTILAGE
 IN HER INFINITE WISDOM, MOTHER NATURE MATCHED THE NUTRIENTS IN WHOLE PREY ANIMALS TO PERFECTLY MEET YOUR DOG'S DIETARY NEEDS.
 Made with richly nourishing ratios of fresh meats, organs, cartilage and fresh whole fish, ORIJEN provides a concentrated source of virtually every nutrient your dog needs to thrive, naturally, without long lists of synthetic supplements, so only zinc is added.


Far less likely

Less likely

Same

More likely

Far more likely



BIOLOGICALLY APPROPRIATE™
 ORIJEN mirrors the richness, freshness and variety of meals that dogs are evolved to eat.

Far less likely

Less likely

Same

More likely

Far more likely

104. Respondents were then asked “With regard to the dog food shown, if one or more of the following were true, would you be more or less likely to purchase the dog food, all else equal?” and shown five statements (e.g., “Does not contain regrinds”).²³¹ For each statement, respondents were again provided with a five-point scale from “Far less likely” to “Far more likely.” Figure 21 presents these questions with the ORIJEN product.²³² Again, the order of questions in the Expectation Survey is unclear.

²³¹ Boedeker Zarinebaf Report, Appendix 1, pp. 333–334, 354–355.

²³² Boedeker Zarinebaf Report, Appendix 1, p. 334.

Figure 21
Purchase Intent Questions Based on Statements

With regard to the dog food bag shown, if one or more of the following were true, would you be more or less likely to purchase the dog food, all else equal?

(For each, please select the one response closest to your opinion)

Does not contain regrinds	Far less likely	Less likely	Same	More likely	Far more likely
Does not contain pentobarbital	Far less likely	Less likely	Same	More likely	Far more likely
Does not contain heavy metals	Far less likely	Less likely	Same	More likely	Far more likely
Does not contain expired ingredients	Far less likely	Less likely	Same	More likely	Far more likely
Does not contain BPA	Far less likely	Less likely	Same	More likely	Far more likely

105. Based on responses to these questions, Mr. Boedeker concluded that “[t]he results indicate that a significant portion of consumers interpret the Products’ packaging to be misleading, assuming Plaintiffs’ allegations are true;”²³³ and that “67.9% to 77.5% of respondents would be more likely to purchase the dog food bag shown if it did not contain BPA, pentobarbital, heavy metals, regrinds, or expired ingredients, respectively.”²³⁴ Mr. Boedeker did not provide any explanation for how the results of his Expectation Survey allow him to reach these conclusions.

B. Mr. Boedeker’s Expectation Survey Sample Is Not Representative of Proposed Class Members and Cannot Be Used to Estimate Their Perceptions or Purchase Intentions

106. As in the case of Mr. Boedeker’s Conjoint Surveys, the sample of respondents who qualified for the Expectation Survey is not representative of Proposed Class Members. Mr. Boedeker’s Expectation Survey sample consists primarily of respondents who have not even considered purchasing the At-Issue Products, and therefore, the data collected from Mr. Boedeker’s Expectation Survey is irrelevant to this matter.

²³³ Boedeker Zarinebaf Report, ¶ 179.

²³⁴ Boedeker Zarinebaf Report, ¶ 180.

107. Figure 22 below summarizes how many respondents in Mr. Boedeker's Expectation Survey purchased or considered purchasing ACANA or ORIJEN products.²³⁵ ²³⁶ Only 57 respondents out of 500 (11.4 percent) indicated that they purchased or considered purchasing ACANA or ORIJEN in the last three years.²³⁷

Figure 22
Percent of Boedeker Expectation Survey Respondents Who Indicated
Purchasing or Considering Purchasing ACANA or ORIJEN

	Number of Respondents	Percent of Respondents
Total Respondents	500	100.0%
Did Not Purchase or Consider Purchasing ACANA or ORIJEN in the Last 3 Years	443	88.6%
Purchased or Considered Purchasing ACANA or ORIJEN in the Last 3 Years	57	11.4%

Source: Boedeker Report and Backup Materials

²³⁵ The process for qualifying for Mr. Boedeker's Expectation Survey was the same as the process for qualifying for Mr. Boedeker's Conjoint Surveys. Respondents were not required to have purchased or considered purchasing ACANA or ORIJEN. Instead, respondents only had to have purchased or considered purchasing one or more dog food brands from a list of 32 brands provided in Mr. Boedeker's Expectation Survey. The qualifying brands used to screen respondents include the following: ACANA, Blue, Blue Wilderness, Castor & Polloux Pristine-Raw Bites, Earthborn Natural, Fromm 4 Star, Fromm Gold, Go! Sensitive, Go! Fit and Free, Holistic Select, Instinct Original Grain Free, K9 Natural, Kirkland Signature Nature's Domain, Merrick Backcountry, Merrick Classics, Merrick Grain Free, Natural Balance, Nature's Variety, NOW Fresh, NutriSource Grain Free, Nutro, Open Farm, ORIJEN, Primal, Purina Pro Plan, Rawz, SOJO's Complete Beef, Stella & Chewy's, Taste of the Wild, Vital Essentials Limited Ingredient, Wellness CORE, and Zignature.

²³⁶ As in the case of his Conjoint Surveys, Mr. Boedeker only produced information regarding his final sample of 500 respondents. It is worth noting that the *Reference Guide on Survey Research* states that, "[t]he completeness of the survey report is one indicator of the trustworthiness of the survey and the professionalism of the expert who is presenting the results of the survey. A survey report generally should provide in detail ... [a] description of the results of sample implementation, including the number of a. potential respondents contacted, b. potential respondents not reached, c. noneligibles, d. refusals, e. incomplete interviews or terminations, and f. completed interviews." See Diamond (2011), p. 415. Neither Mr. Boedeker's report nor his appendices or production files includes information regarding how many survey invitations were sent, how many of the total invitees took the survey, how many respondents began but did not complete the surveys, and how many respondents completed the surveys but were excluded from Mr. Boedeker's final sample.

²³⁷ Mr. Boedeker did not ask respondents in his Expectation Survey whether they had ever purchased ACANA or ORIJEN products as he did in three of his four Conjoint Surveys. Therefore, the only information available from the Boedeker Expectation Survey on whether a respondent purchased ACANA or ORIJEN products comes from whether a given respondent indicated that they purchased or considered purchasing ACANA or ORIJEN products in the last three years. See Boedeker Colangelo Deposition, p. 68:16–22.

108. Further, very few of the respondents who purchased or considered purchasing ACANA or ORIJEN products in the last three years currently reside in Illinois. Figure 23 below shows that only 29 respondents out of 500 (5.8 percent) indicated that they currently reside in Illinois. Of these 29 respondents, only 3 purchased or considered purchasing ACANA or ORIJEN in the last three years.

Figure 23
Percent of Boedeker Expectation Survey Respondents
Who Could Be Members of the Proposed Class

	Number of Respondents	Percent of Respondents
Total Respondents	500	100.0%
Currently Reside in Illinois	29	5.8%
Currently Reside in Illinois and Purchased or Considered Purchasing ACANA or ORIJEN in the Last 3 Years	3	0.6%

Source: Boedeker Report and Backup Materials

109. Furthermore, as in Mr. Boedeker's Conjoint Surveys, the incomes of respondents in Mr. Boedeker's Expectation Survey provide further evidence that his respondents are not representative of ACANA or ORIJEN purchasers. More than a quarter of Mr. Boedeker's survey respondents had incomes less than \$50,000.²³⁸

110. Because the vast majority of Mr. Boedeker's survey data was collected from respondents who have not purchased (and likely would not purchase) the At-Issue Products, Mr. Boedeker cannot use this survey data to reliably estimate consumer expectations about the At-Issue Products. If Mr. Boedeker were to limit his analysis to focus only respondents who indicated that they currently reside in Illinois and that they purchased or considered purchasing ACANA or

²³⁸ Boedeker Zarinebaf Report, Table 11. Again, this is inconsistent with ACANA and ORIJEN's positioning as premium brands. See "Brand Finance U.S. Dog Pet Food Survey," *Brand Finance*, January 13, 2017, CPF0145434-5538, at 489; Section VII.A.

ORIJEN products in the last three years, the resulting sample would consist of 3 respondents – far too small of a sample to rely on.²³⁹

111. As I explained in Section VII.A, “[a] survey that provides information about a wholly irrelevant population is itself irrelevant.”²⁴⁰ Because the large majority of respondents in Mr. Boedeker’s Expectation Survey sample are not representative of ACANA or ORIJEN purchasers, the results of his Expectation Survey (assuming they are reliable, which they are not) cannot reliably be extrapolated to Proposed Class Members.

C. Mr. Boedeker’s Expectation Survey Does Not Include a Control Group And Is Subject To Acquiescence Bias; Therefore, It Cannot Reliably Estimate Consumer Perceptions or Purchase Intent for the At-Issue Products

112. Mr. Boedeker stated that he conducted his Expectation Survey “1) to measure consumer perception regarding the misrepresentations and omissions at issue; and 2) to assess the extent to which those misrepresentations and omissions have a material impact on consumer purchase interest.”²⁴¹ In other words, Mr. Boedeker attempted to test two causal propositions with his Expectation Survey, namely:

- a. How the Alleged Misrepresentations and Omissions affected respondents’ perceptions of the At-Issue Product; and
- b. Whether the Alleged Misrepresentations and Omissions had a material impact on respondents’ purchasing decisions.

These propositions are causal because the issue is not simply whether respondents have inaccurate perceptions of the At-Issue Products, but whether the Alleged Misrepresentations and Omissions *caused* the inaccurate perceptions (or had any subsequent impact on purchasing decisions).²⁴²

²³⁹ See Figure 23 above.

²⁴⁰ Diamond (2011), p. 377.

²⁴¹ Boedeker Zarinebaf Report, ¶ 172.

²⁴² Mr. Boedeker testified at his deposition that the Expectation Survey “... just looks descriptively, not in a cause and effect kind of sense, but descriptively. If something changes, an attribute changes, would consumers pay more or less for that particular product.” See Boedeker Colangelo Deposition, p. 16:15–24. Later in his deposition, Mr. Boedeker provided a similar explanation of his Expectation Survey: “So if some attribute changes then how much more likely from far less likely to far more likely would somebody change their behavior or their choices made.” See Boedeker Colangelo Deposition, p. 17:16–25. This appears to be a contradiction as he claims that the Expectation Survey was not asking a causal question, but was looking at how a change in one variable (a product

113. Proper testing of causal propositions using a survey requires designing a survey instrument that can rule out alternative explanations for any effects observed in the survey (such as respondents' prior beliefs or some baseline level of error that has nothing to do with the proposition that is being tested).²⁴³ This is done through the use of an appropriate control group (or an appropriate control question where applicable). As discussed in Dr. Shari Diamond's *Reference Guide on Survey Research*:

Surveys that merely record consumer impressions have a limited ability to answer questions about the origins of those impressions. The difficulty is that the consumer's response to any question on the survey may be the result of information or misinformation from sources other than the trademark the respondent is being shown or the commercial he or she has just watched.²⁴⁴

It is possible to adjust many survey designs so that causal inferences about the effect of a trademark or an allegedly deceptive commercial become clear and unambiguous. By adding one or more appropriate control groups, the survey expert can test directly the influence of the stimulus.²⁴⁵

Every measure of opinion or belief in a survey reflects some degree of error. Control groups and, as a second choice, control questions are the most reliable means for assessing response levels against the baseline level of error associated with a particular question.²⁴⁶

114. Mr. Boedeker's Expectation Survey did not include a control group or a control question. To assess consumer perceptions, Mr. Boedeker showed *all* respondents the At-Issue Product packaging, provided a series of 16 statements about the At-Issue Product, and asked whether respondents agreed or disagreed with each statement. Without a control group, there is no way

attribute) would lead to a change in another variable (consumer behavior). The process of a change in one variable leading to a change in another variable would by definition necessitate a causal relationship. In fact, if Mr. Boedeker is claiming that his survey does not seek to address a causal question, then it is unclear how his Expectation Survey is relevant to this matter at all.

²⁴³ For example, if respondents already held certain beliefs prior to viewing the Alleged Misrepresentations and Omissions, then a survey that only records respondents' impressions after viewing the Alleged Misrepresentations and Omissions would not be able to disentangle whether the results were due to respondents' preexisting beliefs, a natural level of error that exists independent of any effect of the Alleged Misrepresentations and Omissions, or the respondents' exposure to the Alleged Misrepresentations and Omissions.

²⁴⁴ Diamond (2011), p. 397.

²⁴⁵ Diamond (2011), p. 398.

²⁴⁶ Diamond (2011), p. 401.

to determine whether the agreement or disagreement with these statements was due solely to the Alleged Misrepresentations and Omissions, or influenced by some other factor such as preexisting impressions, general expectations about dog food, or guessing. For example, 36.4 percent of respondents in the Expectation Survey indicated that they “Strongly Agree” that the “Regional” statement makes them expect that the product “does not contain imported ingredients.”²⁴⁷ However, it is possible that a similar share of respondents would have provided this response if they had been shown the same package without the “Regional” statement or if they had been shown a generic dog food package.

115. Mr. Boedeker’s error in not including a control group is further exacerbated by the question format he used in his attempt to measure consumer perceptions. Mr. Boedeker provided respondents with a closed-ended “Agree/Disagree” answer scale on 16 statements (*e.g.*, “The dog food shown does not contain imported ingredients” or “The dog food shown does not contain pentobarbital.”)²⁴⁸ The *Reference Guide on Survey Research* is clear that this type of question format cannot provide meaningful results unless the survey design includes a control group:

One form of closed-ended question format that typically produces some distortion is the popular agree/disagree, true/false, or yes/no question. Although this format is appealing because it is easy to write and score these questions and their responses, the format is also seriously problematic. With its simplicity comes acquiescence... Only when control groups or control questions are added to the survey design can this question format provide reasonable response estimates.²⁴⁹

116. The reason that “Agree/Disagree” Questions are unreliable when used without a control group is that they lead to acquiescence from respondents.²⁵⁰ Acquiescence bias occurs when respondents “[endorse] an assertion made in a question, regardless of the assertion’s content.”²⁵¹ Indeed, the results of the Expectation Survey provide clear evidence that the survey was subject

²⁴⁷ Boedeker Zarinebaf Report, Figure 13.

²⁴⁸ Boedeker Zarinebaf Report, Figures 12–15, 18–21, Appendix 1, pp. 321–326, 340–347.

²⁴⁹ Diamond (2011), p. 394.

²⁵⁰ Diamond (2011), p. 394.

²⁵¹ Krosnick, J. A., and S. Presser (2010), “Question and Questionnaire Design,” in *Handbook of Survey Research*, J. D. Wright and P. V. Marsden, eds., West Yorkshire, England: Emerald Group Publishing Limited, 263–313 (“Krosnick and Presser (2010)”) at p. 275.

to acquiescence bias because respondents tended to agree with whatever statement they were shown, regardless of the statement's content. Over 50 percent of Mr. Boedeker's respondents indicated they "Strongly Agree" or "Agree" with 15 out of the 16 Agree/Disagree Questions on the Expectation Survey.²⁵² In fact, a large share of respondents agreed with statements that were unrelated to the prompts they were presented with. For example, almost 50 percent of respondents who saw the ORIJEN product on Mr. Boedeker's Expectation Survey agreed that a "Nourish as nature intended" statement would lead them to expect that the dog food they were shown "is specifically formulated for large breed dogs."²⁵³ There is no reason why a "Nourish as nature intended" statement would make consumers expect that the product was formulated for large breed dogs. This is not the only nonsensical result of Mr. Boedeker's survey design. Almost 68 percent of respondents who saw the ORIJEN product and 66 percent of respondents who saw the ACANA product indicated that they either "Agree" or "Strongly Agree" that a "Regional" statement would make them expect that the product "does not contain any grains."²⁵⁴ Again, there is no reason why the "Regional" statement would lead to this expectation. These nonsensical results are likely the result of acquiescence bias in that respondents tend to agree to assertions, regardless of their content, when questions use the agree/disagree format.

117. To assess purchase intent, Mr. Boedeker again showed *all* respondents seven labels from the product packaging and five statements about the product and then asked respondents whether each of these labels and statements made them more or less likely to purchase the Champion product they were asked to review.²⁵⁵ But Mr. Boedeker provided information about the At-Issue Products unrelated to the Alleged Misrepresentations and Omissions, as he probed his respondents about their likelihood of purchase.²⁵⁶ This information (*e.g.*, "The dog food shown has high palatability") may have been more important to respondents' purchase intent than the Alleged Misrepresentations and Omissions. Without a control group, it is impossible to disentangle the effect of these other pieces of information, respondents' preexisting beliefs, or

²⁵² Boedeker Zarinebaf Report, Figures 12–15, 18–21.

²⁵³ Boedeker Zarinebaf Report, Figure 15.

²⁵⁴ Boedeker Zarinebaf Report, Figures 13, 19.

²⁵⁵ Boedeker Zarinebaf Report, Appendix 1, 327–334, 348–355.

²⁵⁶ Boedeker Zarinebaf Report, Appendix 1, pp. 316, 324, 335, and 341.

other background noise (such as misunderstanding the question or misstating their response) from the effect of the Alleged Misrepresentations and Omissions.²⁵⁷

118. In fact, Mr. Boedeker acknowledged at his deposition that respondents may have provided identical answers even if they had not been shown the labels related to the At-Issue Misrepresentations and Omissions. When asked whether respondents would have provided different answers if they had not seen the statements and labels related to the At-Issue Misrepresentations and Omissions, Mr. Boedeker stated that “That’s a good question, let me ponder that for a second... the answer cannot be given based on the data I have.”²⁵⁸ The reason that Mr. Boedeker’s data cannot provide an answer to this fundamental question is that he did not include a control group in his survey design.

119. In addition, in his purchase intent questions, Mr. Boedeker did not properly define or provide proper context around the statements, violating survey design best practices.^{259, 260} For example, Mr. Boedeker did not inform respondents that heavy metals and BPA are present in most, if not all, of competitor products or that the heavy metals that are present in Champion products are naturally occurring.²⁶¹ Respondents may have provided very different answers if they were provided with appropriate context for these statements.

D. Mr. Boedeker Failed To Pretest His Expectation Survey

120. When discussing why he conducted pre-tests for his Conjoint Surveys, Mr. Boedeker correctly stated in his report that “Properly conducted pre-tests can inform the researcher of potential flaws in the survey design or sources of potential misunderstanding of the meaning of questions, giving the researcher a chance to rephrase and change wording of the questionnaire to

²⁵⁷ The price that Mr. Boedeker shows respondents for the 25-lb bag of ORIJEN Regional Red is 34 dollars higher than the median price that he uses for the exact same product in his ORIJEN Omissions Survey. Mr. Boedeker provides no explanation of why he inflated the price of the product for the purposes of his Expectation Survey, and the inflated price may have biased respondents towards providing more positive answers about the products they were asked to review. *See* Boedeker Zarinebaf Report, Table 7, Appendix 1, p. 316. *See also*, Diamond (2011), pp. 398–399.

²⁵⁸ Boedeker Colangelo Deposition, p. 37:1–16.

²⁵⁹ Diamond (2011), p. 388

²⁶⁰ Mr. Boedeker’s Expectation Survey included the following statements about heavy metals and BPA: “Does not contain heavy metals” and “Does not contain BPA.” *See* Boedeker Zarinebaf Report, Appendix 1, pp. 334, 355.

²⁶¹ Poppenga Zarinebaf Report, Table 8, pp. 21, 29.

be clear and unambiguous.”²⁶² Conducting pre-tests to improve the clarity and design of survey instruments is a best practice followed by academics and survey practitioners.²⁶³

121. However, Mr. Boedeker chose not to conduct a pre-test for his Expectation Survey. This is despite the fact that academic research recommends conducting pre-tests, the fact that Mr. Boedeker discussed the importance of pre-tests in his own report, and the fact that Mr. Boedeker conducted pre-tests for his Conjoint Surveys. Instead, Mr. Boedeker testified that he reviewed the first “50 or so” answers to a question at the end of his Expectation Survey that asked respondents “Did you have a clear understanding of the questions in this survey.”²⁶⁴ This is not a proper pre-test.²⁶⁵ Had Mr. Boedeker conducted an actual pre-test, he may have avoided some of the fundamental errors in survey design that make his Expectation Survey unreliable.

X. Mr. Silverman’s Opinions on Consumer Perceptions and Purchase Decisions Related to the Alleged Misrepresentations and Omissions Lack Empirical Basis and Are Unreliable

122. Mr. Silverman was asked to provide opinions regarding how Proposed Class Members perceived the Alleged Misrepresentations and Omissions, and whether these Alleged Misrepresentations and Omissions were material to their purchase decisions.²⁶⁶ Mr. Silverman opined on the perceptions and purchase decisions of Proposed Class Members *without conducting any empirical analyses of Proposed Class Members* or any consumers. Further, in reaching his conclusions about how consumers may perceive or react to the Alleged Misrepresentations and Omissions, Mr. Silverman did not consider factors that can influence the perceptions and purchase decisions of Proposed Class Members. As such, Mr. Silverman’s opinions lack empirical basis and are unreliable.

²⁶² Boedeker Zarinebaf Report, ¶ 150.

²⁶³ Diamond (2011), p. 388; Krosnick and Presser (2010), pp. 294–295.

²⁶⁴ Boedeker Colangelo Deposition, 32:16–33:13; Boedeker Zarinebaf Report, Appendix 1, p. 356.

²⁶⁵ Diamond describes a pre-test as: “In many pretests or pilot tests, the proposed survey is administered to a small sample (usually between 25 and 75) of the same type of respondents who would be eligible to participate in the full-scale survey. The interviewers observe the respondents for any difficulties they may have with the questions and probe for the source of any such difficulties so that the questions can be rephrased if confusion or other difficulties arise.” *See* Diamond (2011), pp. 388–389.

²⁶⁶ Silverman Zarinebaf Report, ¶ 5.

A. Mr. Silverman Has Not Conducted Any Research of Actual Champion Purchasers and Thus Cannot Provide Opinions Regarding Their Perceptions of the Alleged Misrepresentations and Omissions

123. Mr. Silverman offered the following opinions regarding Proposed Class Members' perceptions of the Alleged Misrepresentations and Omissions:

- a. When making food purchasing decisions for their family, consumers look for products that are "healthy, made with high-quality ingredients, natural, and are superior to other products in the same category."²⁶⁷
- b. Because "[m]any consumers treat their pets as family members," they are willing to pay premium prices for pet foods with these same attributes.²⁶⁸
- c. The Alleged Misrepresentations communicate to consumers that the At-Issue Products have these same attributes.²⁶⁹
- d. Proposed Class Members are concerned about the possible presence of heavy metals, BPA, pentobarbital, non-fresh ingredients, and non-regional ingredients in those products, and would see the possible presence of these ingredients as inconsistent with the Alleged Misrepresentations.²⁷⁰

124. None of Mr. Silverman's opinions regarding consumers' perceptions and evaluations of products and marketing claims on product packaging is supported by empirical evidence. Marketing experts and practitioners use a variety of empirical methods to evaluate consumers' perceptions of products, ranging from rigorous methods, such as consumer surveys,²⁷¹ to

²⁶⁷ Silverman Zarinebaf Report, ¶ 32.

²⁶⁸ Silverman Zarinebaf Report, ¶ 32.

²⁶⁹ Silverman Zarinebaf Report, ¶ 32.

²⁷⁰ Silverman Zarinebaf Report, ¶ 32.

²⁷¹ Diamond (2011), p. 361 ("Sample surveys are used to describe or enumerate the beliefs, attitudes, or behavior of persons or other social units. Surveys typically are offered in legal proceedings to establish or refute claims about the characteristics of those individuals or social units (*e.g.*, whether consumers are likely to be misled by the claims contained in an allegedly deceptive advertisement; which qualities purchasers focus on in making [purchase] decisions").

qualitative inquiries, such as interviews or focus groups.²⁷² Yet, according to Mr. Silverman's deposition testimony, he did not conduct *any* of those methods.²⁷³ In particular:

- He did not interview any consumers who purchased ACANA or ORIEN;²⁷⁴
- He did not conduct any focus groups of consumers who purchased ACANA or ORIEN;²⁷⁵
- He did not conduct any consumer surveys of consumers who purchased ACANA or ORIEN;²⁷⁶
- He did not review any secondary research studies of consumers who purchased ACANA or ORIEN.²⁷⁷

125. Instead of conducting or reviewing market research, Mr. Silverman based his opinions on his own personal review of Champion's packaging and his personal experiences as an advertising practitioner creating ad campaigns for a wide variety of products²⁷⁸—none of which are comparable to ACANA or ORIEN premium dog food.²⁷⁹ Mr. Silverman's approach therefore does not follow objective or scientific standards. A proper evaluation of consumer

²⁷² Kotler, P. and K. L. Keller (2016), *Marketing Management*, Essex, England: Pearson Education Limited, pp. 125–128. Although Mr. Silverman did not conduct any interviews or focus groups of Champion purchasers for the current matter, he appears to be familiar with the method, having “personally interviewed more than 5,000 customers and attended at least 3,500 focus group sessions for products ranging from automobiles to dog toys ... [covering topics such as] why [consumers] preferred certain dog food brands, and what they liked (or did not like) in proposed commercials for dog foods.” See Silverman Zarinebaf Report, ¶ 26.

²⁷³ Deposition of Bruce Silverman, March 17, 2021 (“Silverman Colangelo Deposition”), pp. 12:13–13:5.

²⁷⁴ Silverman Song Deposition, p. 30:7–10. Mr. Silverman also testified that he did not review the depositions of the named plaintiffs in this case or in any of the related cases. See Silverman Song Deposition, p. 19:2–9.

²⁷⁵ Silverman Song Deposition, p. 30:13–16.

²⁷⁶ Silverman Song Deposition, p. 30:17–21.

²⁷⁷ Silverman Song Deposition, pp. 48:5–10, 139:6–11.

²⁷⁸ Silverman Zarinebaf Report, ¶ 10 (“My opinions are reflective of the practical knowledge and insights I have gained over the course of a 50-year career working at the highest levels in the ‘real world’ of marketing, branding and advertising.”); Silverman Song Deposition, pp. 29:24–30:6 (“Q. [W]hat were you asked to do as part of your engagement for this case? A. Well, really the focus of my assignment was to review the claims that were on the package, the statements that the plaintiffs were alleging were false or deceptive using my expertise as a marketing expert, branding expert, communications expert to provide opinions as to whether or not those claims would have been material to consumers.”); Silverman Song Deposition, p. 137:4–7 (“[T]he opinions I’ve expressed here are based on my experience dealing with consumers and learning about consumers.”).

²⁷⁹ Silverman Song Deposition, p. 42:1–8 (“Q. Of all the companies you’ve worked for as an advertising executive which was the most similar to Champion Petfoods? A. Well, the way I look at it, you know, I’ve already told you I worked on two dog food accounts so, you know, I can arguably say that they were similar, but I don’t think they were similar. They weren’t selling premium products.”).

perceptions of a product or a product's marketing claims requires an empirical study of *actual consumers*, such as by conducting or reviewing consumer surveys, focus groups, interviews, or secondary research. Mr. Silverman understands this principle in the context of creating effective advertising campaigns for his clients in the course of his private practice. He has testified that his clients often spend millions of dollars annually on primary and secondary research studies to understand how consumers learn, think, and feel about the products they are considering purchasing.²⁸⁰ Yet in connection with his work in this current matter, Mr. Silverman claims to understand how Champion purchasers perceived the Alleged Misrepresentations and Omissions without conducting or reviewing any empirical research specific to actual Champion purchasers.

B. Mr. Silverman Did Not Consider Factors That Can Influence the Perceptions and Purchase Decisions of Proposed Class Members

126. Mr. Silverman also offered the following opinions regarding the materiality of the Alleged Misrepresentations and Omissions to Proposed Class Members' purchase decisions:

- a. Consumers are positively influenced by the Alleged Misrepresentations that appear on Champion's packaging when making their purchase decisions.²⁸¹
- b. In regards to the Alleged Misrepresentations, "[c]onsumers are likely to rely on the veracity of these statements."²⁸²
- c. Purchasers of premium-priced dog food are "concerned about the possible presence of heavy metals, BPA, pentobarbital, non-fresh ingredients, and non-regional ingredients in those products" and would view the possible presence of these contaminants as material to their purchasing decisions.²⁸³
- d. Disclosure on At-Issue Products' packaging that the products "contained and/or had a risk of containing" these contaminants "would have adversely affected consumers' willingness to purchase the Champion products."²⁸⁴

²⁸⁰ Silverman Zarinebaf Report, ¶ 26; Silverman Song Deposition, p. 102:22–25. Mr. Silverman also testified in his deposition that during his time as an advertising executive he would "do studies in some instances" to understand what consumers understood and believed about advertising statements. *See* Silverman Song Deposition, p. 47:14–20; *see also* Silverman Song Deposition, p. 60:1–13 (Mr. Silverman conducted focus groups to understand whether consumers in the northeast would be "impressed" by his client's marketing claims).

²⁸¹ Silverman Zarinebaf Report, ¶ 32.

²⁸² Silverman Zarinebaf Report, ¶ 32.

²⁸³ Silverman Zarinebaf Report, ¶ 32.

²⁸⁴ Silverman Zarinebaf Report, ¶ 32.

However, Mr. Silverman failed to consider factors that can influence consumers' perceptions and purchase decisions.

127. For example, Mr. Silverman provided only a cursory discussion of the information presented on the product packaging other than the Alleged Misrepresentations. Additional information on the packaging provides context and can influence how Proposed Class Members perceived the Alleged Misrepresentations and whether the Alleged Misrepresentations were material. Mr. Silverman dismissed this by saying that "it has been my experience that very few consumers make a point of checking the accuracy of each and every front of package claim by reading the fine print disclaimers that may appear on the back of a package or in a nutrition label, especially if they believe the brand to be trustworthy."²⁸⁵ But if this is true, then consumers would also not have seen or relied on some of the Alleged Misrepresentations in the first place (e.g., "Delivering Nutrients Naturally" and "Fresh Regional Ingredients"), which are not necessarily prominent or on the front of the package.²⁸⁶ In addition, information that provides context and indicates that the product is not made *solely* from fresh ingredients is featured prominently on Champion products. In particular, the "Meat Math" panel on Champion products is featured prominently and provides information on the amount of fresh and non-fresh meat contained in the product.²⁸⁷ Mr. Silverman provides no evidence for his opinion that consumers would ignore one prominently featured label that clearly indicates a product is made of fresh and non-fresh ingredients, while focusing exclusively on a relatively vague marketing slogan (e.g., "Biologically Appropriate"). Indeed, at his deposition, Mr. Silverman acknowledged that, "a significant portion of consumers of products like these look at both the front and back [of the package]."²⁸⁸

128. Mr. Silverman also did not properly consider information or knowledge Proposed Class Members may have utilized beyond Champion's product packaging. For example, many

²⁸⁵ Silverman Zarinebaf Report, ¶ 53.

²⁸⁶ See, e.g., Boedeker Backup Materials (Song), "DS 2015 ACANA Heritage Meats 13lb.pdf."

²⁸⁷ Silverman Zarinebaf Report, ¶ 110. As an example, the packaging for a 13-pound bag of ACANA Heritage Meats Formula dog food produced by Mr. Boedeker in the Song matter indicates that of the 7 ¾ pounds of Beef, Pork, and Lamb ingredients, "[h]alf are FRESH or RAW" and "half are DRIED or OILS." The ingredients list on the same package includes, among other things, freeze-dried beef liver, freeze-dried pork liver, and freeze-dried lamb liver. See Boedeker Backup Materials (Song), "DS 2015 ACANA Heritage Meats 13lb.pdf."

²⁸⁸ Silverman Colangelo Deposition, p. 25:3-4.

consumers consult their veterinarians or specialty pet food store employees and research products on the internet.²⁸⁹ At his deposition, Mr. Silverman testified that he himself selected a dog food brand based on the recommendation of the dog's breeder and not based on the product packaging at all.²⁹⁰ Mr. Silverman also acknowledged that "Champion depends on word-of-mouth from satisfied pet parents, veterinarians and positive reviews on relevant websites..."²⁹¹ He went on to say that "the Challenged Statements on the package help close the sale," yet provided no evidence for this assertion.²⁹²

129. In addition, consumer knowledge regarding the routine presence of trace amounts of heavy metals at safe levels (such as mercury in a variety of products including pet foods)²⁹³ could have informed consumers' reactions to the Alleged Misrepresentations and Omissions as well as their purchase decisions. But Mr. Silverman simply concluded that (i) any presence of heavy metals (even within industry safety standards) is inconsistent with Champion's packaging claims because he personally did "not believe that a reasonable consumer would see mercury, or for that matter any other heavy metal, as a 'fresh regional ingredient,'"²⁹⁴ and (ii) "if consumers were to learn of Champion's failure to disclose the presence of heavy metals ... their willingness to pay a premium for [Champion] products would decrease or they would possibly refuse purchase them at all."²⁹⁵

130. Similarly, Mr. Silverman did not consider any information regarding marketing claims and ingredients used by competing brands that Proposed Class Members may have utilized during their purchase decision. For example, I understand that all, or nearly all, dry kibble dog foods have measureable levels of heavy metals.²⁹⁶ Indeed, at his deposition Mr. Silverman could not name a single dry kibble dog food sold in the United States that does not have detectable

²⁸⁹ "Brand Finance U.S. Dog Pet Food Survey," *Brand Finance*, January 13, 2017, CPF0145434–5538, at 459.

²⁹⁰ Silverman Song Deposition, pp. 8:3–6; 9:13–17.

²⁹¹ Silverman Zarinebaf Report, ¶ 62.

²⁹² Silverman Zarinebaf Report, ¶ 62.

²⁹³ Poppenga Zarinebaf Report, pp. 8, 11–12, 21.

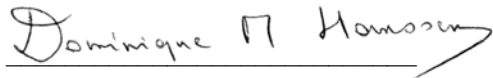
²⁹⁴ Silverman Zarinebaf Report, ¶ 167. When asked in deposition, Mr. Silverman acknowledged that an ingredient can in fact be both fresh and contain heavy metals (*e.g.*, naturally occurring heavy metals in a freshly caught fish). *See* Silverman Song Deposition, p. 114:3–11.

²⁹⁵ Silverman Zarinebaf Report, ¶ 225.

²⁹⁶ Poppenga Zarinebaf Report, pp. 15, 21.

levels of heavy metals.²⁹⁷ When asked what dog food he would purchase if every dog food had detectable levels of heavy metals, Mr. Silverman responded, “If every dog food had detectable levels of those things, then I’d have to – you know, it’s a wash. I’ve got to feed the dog something. I want to feed her as well as we possibly can.”²⁹⁸

131. In sum, Mr. Silverman did not perform any empirical research on Champion purchasers (or any empirical research at all), and instead just offered his personal opinions. Likewise, his ad hoc approach to assessing consumer perceptions and the materiality of the Alleged Misrepresentations and Omissions failed to account for information or knowledge Proposed Class Members may have utilized based on Champion’s product packaging or beyond Champion’s product packaging. Thus, Mr. Silverman’s approach not only lacks empirical basis but his opinions amount to no more than unsubstantiated speculations.

A handwritten signature in cursive script that reads "Dominique M. Hanssens". The signature is written in dark ink and is positioned above a horizontal line.

Professor Dominique M. Hanssens

March 29, 2021

²⁹⁷ Silverman Song Deposition, pp. 105:25–106:24.

²⁹⁸ Silverman Song Deposition, p. 136:1–8.

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Academic Positions

UCLA, Anderson School of Management
Distinguished Research Professor, 2015-present
Bud Knapp Professor of Marketing, 1999-2015

Marketing Science Institute, Cambridge, MA
Executive Director, 2005-07

Catholic University of Leuven, Belgium
Visiting Professor, Department of Applied Economics, 1984

Purdue University
Graduate Instructor, School of Industrial Management, 1975-76

Education

Ph.D., Purdue University, Management
Thesis: "An Empirical Study of Time-Series Analysis in Marketing Model Building."
Chair: Frank M. Bass

M.S., Purdue University, Management

Licenciate, University of Antwerp (UFSIA), Applied Economics

Languages

Dutch, English, French, German, Spanish

RESEARCH

Books and Monographs

D. M. Hanssens. *Long Term Impact of Marketing: A Compendium*. World Scientific Publishing, 2018.

N. Mizik and D. M. Hanssens, Eds., *Handbook of Marketing Analytics: Methods and Applications in Marketing Management, Public Policy and Litigation Support*. Edward Elgar, 2018.

Reviewed in *Applied Marketing Analytics* (Vol. 4, #2, 2018)

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Hanssens, D.M., “History of Marketing Science: Econometric Models,” in *The History of Marketing Science*, R. Winer and S. Neslin, Eds., Now Publishers Inc., 2014.

Luo, X., K. Pauwels & D.M. Hanssens, “Time-Series Models of Pricing the Impact of Marketing on Firm Value,” in *Handbook of Marketing and Finance*, S. Ganesan, Ed., Edward-Elgar Publishing, MA, 2012.

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Hanssens, D.M. “Allocating Marketing Communication Expenditures: A Long-Run View,” in *Measuring and Allocating Marcom Budgets: Seven Expert Points of View*, Batra, R. and Reibstein, D. (Eds.), Marketing Science Institute, 2003.

Hanssens, D.M. and Parsons, L.J., “Econometric and Time-Series Market Response Models,” in *Handbooks in OR & MS*, Vol 5, Eliashberg, J. and Lilien, G.L. (Eds.), Elsevier Science Publishers, 1993. Translated in Japanese, 1998.

Academic Articles

Edeling, A., S. Srinivasan and D.M. Hanssens, “The Marketing-Finance Interface: A New Integrative Review of Metrics, Methods, Findings and Future Directions,” *International Journal of Research in Marketing*, forthcoming, 2021.

Ding, Y., W. DeSarbo, D.M.Hanssens, K.Jedidi, J.Lynch and D.Lehmann, “The Past, Present and Future of Measurement and Methods in Marketing Analysis,” *Marketing Letters*, June 2020.

N. Bharadwaj, R. Rao and D.M. Hanssens, “Corporate Brand Value and Cash Holdings,” *Journal of Brand Management*, July 2020.

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Finalist, 2017 Best Paper Award, *International Journal of Research in Marketing*

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Finalist, 2017 MSI/Paul Root Best Paper Award, *Journal of Marketing*

P. Chintagunta, D.M. Hanssens and J. Hauser, “Marketing Science and Big Data,” *Marketing Science*, May-June 2016.

H. S. Shin, D.M. Hanssens and K.I.Kim, "The Role of Online Buzz for Leader vs. Challenger Brands: The Case of the MP3 Player Market," *Electronic Commerce Research*, 2016.
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Finalist, Robert D. Buzzell Best Paper Award, *Marketing Science Institute*

S. Gupta, D. Hanssens, J. Hauser, D. Lehmann & B. Schmitt, "Introduction to Theory and Practice in Marketing Special Section of Marketing Science," *Marketing Science*, January-February 2014.

P. Chintagunta, D. Hanssens, J. Hauser, J. Raju, K. Srinivasan & R. Staelin, "Marketing Science: A Strategic Review," *Marketing Science*, January-February 2013.

D.M. Hanssens, "Response Models, Data Sources, and Dynamics: Commentary on 'Measuring the Impact of Negative Demand Shocks on Car Dealer Networks'," *Marketing Science*, January-February 2012.

M.G. Dekimpe & D.M. Hanssens, "Time Series Models in Marketing: Some Recent Developments," *Marketing - Journal of Research and Management, Special Issue in Honor of Lutz Hildebrandt*, 6 (1), 2010.

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Robert D. Buzzell Best Paper Award, *Marketing Science Institute*, 2006

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Lead article

With commentaries and rejoinder

Finalist for the 2009-2010 Paul Green Best Paper Award.

Finalist for the 2014 William O'Dell Long Term Impact Award

French translation available in "Marketing et valeur de l'entreprise : mesures, méthodes, résultats et voies futures de recherche," *Recherche et Applications en Marketing*, 24 (4), 2009.

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K.Pauwels & D.M. Hanssens, "Performance Regimes and Marketing Policy Shifts," *Marketing Science*, May-June 2007.

Lead article

Finalist, John D.C. Little Best Paper award

Finalist, Frank M. Bass Best Dissertation-based Paper award

S. Gupta, D. Hanssens, B. Hardie, W. Kahn, V. Kumar, N. Lin, N. Ravishanker and S. Sriram (2006), "Modeling Customer Lifetime Value," *Journal of Service Research*, 9, 2 (November).

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Finalist for the 2002-2003 Paul Green Best Paper Award.
Winner of the 2007 William O'Dell Award

V. Nijs, M. Dekimpe, J.-B. Steenkamp & D.M. Hanssens, "The Category Effects of Price Promotions, *Marketing Science*, Winter 2001.

Lead article.
Co-Winner of the 2001 John D.C. Little Best Paper Award.
Winner of the 2002 Frank M. Bass Outstanding Dissertation Award.
Finalist, 2011 Long-Term Impact Award, Society for Marketing Science

M.G. Dekimpe and D.M. Hanssens, "Time-Series Models in Marketing: Past, Present and Future," *International Journal of Research in Marketing*, September 2000.

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Winner of the 1999-2000 Paul Green Best Paper Award.
Finalist for the 2004 William O'Dell Award.

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M.G. Dekimpe and D.M. Hanssens, "The Persistence of Marketing Effects on Sales," *Marketing Science*, Winter 1995.

Lead article.

Co-Winner of the 1995 John D.C. Little Best Paper Award.

G.S. Carpenter and D.M. Hanssens, "Market Expansion, Cannibalization and Optimal Airline Pricing," *International Journal of Forecasting*, Vol 10, 1994.

A. Roy, D.M. Hanssens and J.S. Raju, "Competitive Pricing by a Price Leader," *Management Science*, July 1994.

Lead article.

K. Powers, D.M. Hanssens, Y.I. Hser and M.D. Anglin, "Policy Analysis with a Long-Term Time Series Model: Controlling Narcotics Use and Property Crime," *Mathematical and Computer Modeling*, Vol. 17, 2, 1993.

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G.S. Carpenter, L.G. Cooper, D.M. Hanssens and D.F. Midgley, "Modeling Asymmetric Competition," *Marketing Science*, Fall 1988.

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H. Gatignon and D.M. Hanssens, "Modeling Marketing Interactions with Application to Sales Force Effectiveness," *Journal of Marketing Research*, August 1987.

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Finalist for the 1992 William O'Dell Award.

S.I. Ornstein and D.M. Hanssens, "Alcohol Control Laws and the Consumption of Distilled Spirits and Beer," *Journal of Consumer Research*, September 1985.

W.A.V. Clark, H.E. Freeman and D.M. Hanssens, "Opportunities for Revitalizing Stagnant Markets: An Analysis of Consumer Durables," *Journal of Product Innovation Management*, December 1984.

D.M. Hanssens and L.M. Liu, "Lag Specification in Rational Distributed Lag Structural Models," *Journal of Business & Economic Statistics*, October 1983.

D.M. Hanssens and H.A. Levien, "An Econometric Study of Recruitment Marketing in the U.S. Navy," *Management Science*, October 1983.

L.M. Liu and D.M. Hanssens, "Identification of Multiple-Input Transfer Function Models," *Communications in Statistics (Theory & Methods)*, 1982(3).

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Finalist for the 1985 William O'Dell Award.

D.M. Hanssens, "Bivariate Time-Series Analysis of the Relationship between Advertising and Sales," *Applied Economics*, September 1980.

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R. Becerril-Arreola and D.M. Hanssens, "Measuring and Explaining Product Positionality," April 2020. Under review.

R. Song, S. Jang, Y. Wang, D.M. Hanssens and J. Suh, "Reinforcement Learning and Risk Preference in Equity Linked Notes Markets," September 2019. Under review.

H. S. Shin, D. M. Hanssens, K.I. Kim and J. A. Choe, "Positive vs. Negative e-Sentiment and the Market Performance of High-Tech Products," August 2013.

Grant recipient, *Marketing Science Institute*

S. Yoo, D.M. Hanssens & H. Kim, "Marketing and the Evolution of Customer Equity of Frequently Purchased Brands," October 2012.

H. S. Shin, M. Sakakibara & D. M. Hanssens, "Marketing and R&D Investment of Leader vs. Follower," July 2010.

Articles for Executives

D.M. Hanssens, "Editorial: Marketing Science and Epidemiology," *Applied Marketing Analytics*, 6,1, 2020.

May, T., T. Chretien, C. Brandt Jones and D.M. Hanssens, "Beyond CSAT – Building Brands with Integrated Insights to Drive Results," *Journal of Brand Strategy*, 8, 4, Spring 2020.

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P. Chintagunta, D.M. Hanssens and J.R. Hauser, "Why does Marketing Need to Strongly Embrace Data Science?," *GfK Marketing Intelligence Review*, 8, 2, 2016.

P. Farris, D. M. Hanssens, J. Lenskold and D. Reibstein, "Marketing Return on Investment: Seeking Clarity for Concept and Measurement," *Applied Marketing Analytics*, Summer 2015.

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C. Binder and D.M. Hanssens, "Why Strong Customer Relationships Trump Powerful Brands," *Harvard Business Review Online*, April 2015.

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Book Reviews

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"Time Series and Forecasting with IDA," by H. Roberts, in *Journal of the American Statistical Association*, June 1985.

"Innovation Diffusion: Models and Applications," by V. Mahajan and R. Peterson, in *Journal of Marketing Research*, November 1985.

TEACHING

Courses Taught at UCLA

Elements of Marketing (MBA)
Mathematical Models in Marketing (MBA/PhD)
International Marketing (MBA)
Quantitative Research in Marketing (PhD)
Time Series Analysis (PhD/MBA)
Special Research Topics in Marketing (PhD)
Management Field Studies Advisorship (MBA)
Directed Readings in Applied Econometrics and International Marketing (PhD/MBA)
Workshop in Marketing (PhD)
Data Analysis and Decisions under Uncertainty (Executive MBA)
Research in Marketing Management (Ph.D.)
Marketing Strategy and Policy (Executive MBA)
Marketing Strategy and Planning (MBA)
Action Research Project (Executive MBA)
Customer Information Strategy (Executive MBA)
Managerial Problem Solving (MBA)
Marketing Management II (MBA)
Marketing Strategy and Planning: Focus on Central & Eastern Europe (MBA)

Doctoral Committees

As chair or co-chair:

Bonita J. Campbell, PhD Management, 1979. Professor of Engineering, California State University, Northridge
Yoshi Sugita, PhD Management, 1985. Professor of Economics, Gakushuin Univ. Tokyo
Abhik Roy, PhD Management, 1989. Professor of Marketing, Quinnipiac University
Keiko Powers, PhD Psychology, 1990. Senior Marketing Scientist, MarketShare.
Maria Cison, PhD Economics, 1990. Economist, General Motors Corporation, Detroit
Marnik Dekimpe, PhD Management, 1992. Research Professor, Tilburg University
Koen Pauwels, PhD Management, 2001. Professor, Northeastern University
Julian Villanueva, PhD Management, 2003. Professor, IESE, Madrid
Shijin Yoo, PhD Management, 2004. Professor, Korea University
Amit Joshi, PhD Management, 2005. Professor, IMD, Lausanne
Hyun Shin, PhD Management, 2008. Associate Professor, Hanyang Univ., Korea
Rafael Becerril, PhD Management, 2013. Assistant Professor, Univ. of South Carolina
Ho Kim, PhD Management, 2013. Assistant Professor, Univ. of Missouri, St. Louis

As member:

Luiz Caleffe, PhD Education, 1980
Hubert Gatignon, PhD Management, 1981
Douglas Nigh, PhD Management, 1981
Marjorie Chan, PhD Management, 1981
Daniel Wunsch, PhD Education, 1981

Mary Kreik, Dr. Public Health, 1982
Ngina Lythcott, Dr. Public Health, 1982
Harish Sujana, PhD Management, 1983
Sharon Garrett, PhD Public Health, 1983
Jan Ouren, PhD Public Health, 1983
Robert Curtis, PhD Management, 1985
Melvyn Menezes, PhD Management, 1985
Benoit Boyer, PhD Management, 1987
Kannan Srinivasan, PhD Management, 1986
Harold Stanislaw, PhD Psychology, 1987
Leon Crabbe, PhD Economics, 1988
Joao Assuncao, PhD Management, 1990
Parvish Nourjah, PhD Epidemiology, 1991
Ronald Rivas, PhD Management, 1997
Ronald Dietel, EdD Education, 1997
Reza Sadri, PhD Computer Science, 2001
Catarina Sismeiro, PhD Management, 2002
Yan-Nei Law, PhD Computer Science, 2005
Wayne Taylor, PhD Management, 2017

As external member:

Katrijn Gielens, Doctor in Applied Economics, Catholic University of Leuven, 1999
Vincent Nijs, Doctor in Applied Economics, Catholic University of Leuven, 2001
Marcel Kornelis, Doctor in Economics, University of Groningen, 2002
Isaac Dinner, PhD, Columbia University, 2011
Ofer Mintz, PhD, University of California, Irvine, 2011
Chloe Moon, PhD, University of California, Riverside, 2020

Executive Seminars (since 2000)

Wells Fargo Bank, 1995-2005
PriceWaterhouseCoopers, 2000
Columbia University Executive Program, 2001
Marketing Strategy in the Information Age, 2000-02
Faculty Director, 2000-02
UCLA Strategic Leadership Institute, 2000-2003
Ambrosetti, Italy, 2002, 2004, 2005, 2006
Credit Suisse, 2002-03
University of California San Diego, Executive Program, 2003
Auchan, France, 2004
Gen-Probe, San Diego, 2004
Numico, Singapore, 2006
Greater Paris Investment Agency, 2007
SAS Forum, Madrid, 2007
Marketing Roundtable, Georgia State University, 2008

Amgen, 2008
Baptie CMO Community, 2008
Korea Productivity Center, 2009
Coca-Cola Latin America, 2010
Adobe, 2012
Teradata, 2013, 2015
American Bar Association, 2013
Hollywood IT Society, 2015, 2016
World Marketing Summit, Tokyo, 2016
Forbes CMO Summit, 2018
World Marketing Summit, Istanbul (2018), Tokyo (2019), Manila (2020),
Lahore (2020), New Delhi (2020), Kuala Lumpur (2020)
MMA Global (2020)
Electronic World Marketing Summit (2020)

ADMINISTRATION

Executive Director, Marketing Science Institute, Cambridge, Massachusetts, 2005-2007

MSI is a not-for-profit institute founded in 1961 with the mission of bringing together the leading academics and practitioners in marketing to create knowledge that improves business performance. The Executive Director serves a two-year term, overseeing the research priorities, research grants, conference content, publications, collaborative research and other programs of the Institute. He or she also serves as key liaison between the MSI member companies and academic researchers.

Executive Positions at UCLA, Anderson Graduate School of Management

Chairman, 1988-1990

Chief academic officer for the 150 full-time and part-time faculty of the sole department in the school. Key responsibilities include hiring, promotion, salary negotiations, course assignments, summer research funding, departmental organization and budgeting. Position involves extensive contacts with the dean of the school and the university administration.

Associate Dean, Academic Affairs & Strategic Planning, 1991-1993

Responsible for all degree programs, interdisciplinary research centers, and information technology services of the school. Also charged with developing a strategic plan for the school. Position involves extensive contacts with the external constituencies. Acts as dean of the school in his absence.

Vice-President, Management Education Associates, 1991-1993

Faculty Director, Global Executive MBA Program for the Americas, 2010-2013

Faculty Director, Morrison Center for Marketing and Data Analytics, 2015-2016

Other Administrative Functions

UCLA Anderson School of Management

Marketing Area Chair, 1984-87, 1993-96, 1999-00, 2004-05, 2007-09, 2012-14.

Elected Member of Staffing Committee, 1982-83, 1984-86, 2000-02.

Chairman, Research Committee, 1986-88

Research Committee, 1990-1998, 2008-2013

Chairman, Executive Education Committee, 1993--95

Advisory Board member, Center for Corporate Renewal, 1995-1998

Elected Member of Faculty Executive Committee, 1997-2000, 2010-2013.

Board of Visitors Marketing Task Force, 1997-98, 2002-03

Teaching Improvement Committee, 1998-01

Advisory Board member, Center for Management in the Information Economy, 2000-02

Chairman, Faculty Advisory Board, Entertainment Research Center, 2002-2004

Faculty Director, Entertainment & Media Management Institute, 2004-05.
Compensation Task Force, 2011
Co-chair, UCLA Anderson Task Force on Branding, 2011-2012

University of California

Review Committee, UC Irvine Graduate School of Management, 1988
Chairman, UCLA Task Force on Economic Reconstruction and Development, 1992
Task Force on UCLA Faculty Workload, 1993--94
Task Force on Part-Time Masters Programs, 1993--94
Clinical Scholars Program Committee, UCLA School of Medicine, 1997-2002
Dean Search Committee, UCLA School of Education, 1999
Chairman, Dean Review Committee, UCLA School of Letters and Sciences, 2001-02
Dean Review Committee, UCLA Extension, 2011
Faculty Welfare Committee, UCLA Academic Senate, 2011-2014
Dean Search Committee, UCLA Extension, 2013
Vice Chancellor Search Committee, UCLA, 2015
External Review Committee, Samueli School of Engineering, UC Irvine, 2016

Other

Faculty Advisory Board, Gemini Consulting, San Francisco, 1988-1997
Marketing Advisory Board, KeraVision, San Jose, 1995-1999
Board of Directors, i-Mind Education Systems, 1998-2001
Academic Trustee, Marketing Science Institute, Boston, 2002-2005
Executive Committee, Marketing Science Institute, Boston, 2005-2011.
External Review Committee, Wharton School Marketing Department, 2003
Member, UCLA Committee on Research, 2003-2005.
Founding Director, Marketing Accountability Standards Board (MASB), 2006-2017
External Review Committee, New York University Marketing Department, 2008
Selection Committee, AMA Irwin Distinguished Marketing Educator Award, 2006-2009
Chairman, 2008-2009
Board of Directors, MarketShare, Los Angeles, 2006-2015
International Advisory Board, HEC School of Management, Paris, 2009-2015
External Review Committee, Erasmus Research Institute of Management, Rotterdam, 2010
Academic Advisory Board, Unilever Marketing Science Unit, London, 2012-2015
Supervisory Board, Erasmus University Research Institute of Management, 2012-
Senior Advisor, Cornerstone Research, 2014-
Advisory Board, MarketShare, Los Angeles, 2016-17
President, INFORMS Society for Marketing Science, 2016-17
Selection Committee, Buck Weaver Award for Lifetime Contribution to Marketing
Theory & Practice, ISMS, 2018-present
Advisory Board, LiftLab, San Francisco, 2019-
Chair, Research Evaluation Committee, Tilburg Institute for Economics and Management, 2020

PROFESSIONAL SERVICE

Grants

UCLA Alcohol Research Center, \$39,000, for a study of regulation effect on alcohol consumption, 1979-80 (with S.I. Ornstein)
Director, Robert Anderson Research Endowment in Management, \$250,000, 1988-93, 1997-99
Columbia Charitable Foundation, \$230,000, Information Technology Planning Grant, 1991-1992
Director, William Leonhard Research Endowment in Management, \$200,000, 1993-97
Various Marketing Science Institute research grants, 1996-present

Editorial Boards

Journal of Marketing Research, 1984-88 and 2003-05
Journal of Marketing Research, Associate Editor, 2007-10
Journal of Marketing Research, Editor's Advisory Board, 2010-16
Journal of Marketing, Associate Editor, 2014-16
Journal of Marketing, Special Issue Co-Editor, 2007-09
Marketing Science, 1983-94
Marketing Science, Area Editor, 1988-91
Marketing Science, Editor's Advisory Board, 2010-15
Marketing Science, Special Issue Co-Editor, 2013-16
Management Science, Associate Editor, 1978-88
Recherche et Applications en Marketing, 1987-
International Journal of Research in Marketing, 1993-2003
International Journal of Research in Marketing, Associate Editor, 2009-2016
Applied Marketing Analytics, Editorial Board, 2014-

Ad Hoc Reviewing

Marketing Science, 1981-82
Journal of Forecasting, 1981--
Management Science, 1981--
Journal of Marketing Research, 1981-83
Journal of Consumer Research, 1982--
Interfaces, 1992--
Decision Sciences, 1982--
International Journal of Research in Marketing, 1983-92
Computers & Industrial Engineering, 1983--
Journal of Business & Economic Statistics, 1984--
Journal of Product Innovation Management, 1984--
Psychometrika, 1985--
National Science Foundation, 1984--
Communications in Statistics, 1987--
Journal of Time Series Analysis, 1988--
Journal of Marketing, 1987--
International Journal of Forecasting, 1992--
Journal of Econometrics, 1996-
Marketing Letters, 1996-

Research Council of the United Kingdom, 1997
Research Foundation – Flanders, 2016

Invited Research Seminars

2020 University of Texas, Austin
2019 Columbia University*
Harvard Law School*
2018 IESE, Barcelona*
BI Norwegian School of Management*
2017 University of Groningen*
University of California, Riverside
2016 University of Tennessee
University of Pennsylvania, Wharton School
Indiana University, University of Notre Dame*,
Chinese University of Hong Kong*
University of Oxford
2015 University of Kansas, University of South Carolina,
London Business School, New York University*,
Bogazici University, Istanbul*, Tilburg University*
2014 University of Maryland, Northwestern University,
Universität zu Köln, Tohoku University
2013 University of Michigan
2012 University of Texas, Austin, University of Central Florida,
University of Florida, Fudan University Shanghai,
University of Washington
2011 Boston University*, University of Utah
2010 University of California, Davis, University of North Carolina,
Texas Christian University, Erasmus University, Rotterdam*
BI Norwegian School of Management*
2009 Korea University*, Georgia State University*, University of Arizona
2008 UCLA Anderson Faculty Lecture Series, University of Minnesota,
Tilburg University*, University of Missouri, Georgia State University
2007 Boston University, Columbia University, Arizona State University
2006 University of Groningen*, Harvard Business School,
Emory University, Texas A&M University,
University of Maryland, Massachusetts Institute of Technology,
Dartmouth College
2005 Washington University, St. Louis, Ohio State University,
Singapore Management University, University of Connecticut
Yale University, MIT Data Center
2004 UCLA Marschak Interdisciplinary Colloquium, University of California, San Diego,
UCLA Finance Seminar Series, Koc University, Istanbul
2003 Tulane University, Dartmouth College, McGill University,
Tilburg University, Duke University
2002 University of Texas, Austin, Erasmus University, University of Groningen
2001 University of Texas at Dallas, Simon Fraser University,
Tilburg University

2000 AMA Advanced Research Forum, Monterey, University of Western Ontario
1999 University of California, Riverside, University of Southern California,
Georgetown University, UCLA Anderson Faculty Lecture Series
1998 Humboldt University, Berlin, Northwestern University
1997 University of Cambridge, University of Washington Marketing Camp
1996 University of California, Berkeley, University of Budapest,
Marketing Science Institute (1996-present)
1995 University of Texas, Austin, University of California, Irvine,
Universitat Mainz
1994 Catholic University of Leuven, University of Iowa,
Hong Kong University of Science & Technology
1991 INSEAD, Catholic University of Leuven Law School
1990 Catholic University of Leuven, Washington University, St. Louis,
University of Florida, AMA Doctoral Consortium
1989 Georgetown University, Columbia University Marketing Camp
1987 Columbia University
1986 University of Houston
1985 Carnegie-Mellon University
1984 Washington State University, HEC Paris, Universidad de Zaragoza,
Universiteit Antwerpen, Universite de Mons, Universiteit Gent,
Universitat Bielefeld
1983 UCLA Economics Department
1982 University of Texas at Dallas, University of Washington
1981 Stanford University, Harvard University

* denote plenary lectures at conferences hosted by or at the university

Consulting

airlines: Air France
automotive: Ford, Mercedes, Lexus
consumer products: General Mills, Mars, Mattel Toys, Nestle, Coca-Cola
entertainment: Sony, Electronic Arts, Xbox, Disney, NBC, Vivendi
financial services: Home Savings, Wells Fargo, Wachovia, Schwab, CitiCorp, Fidelity
health care: Amgen, Johnson & Johnson, Safeguard Health, GlaxoSmithKline, KeraVision
information services: Catalina Marketing, TRW, TNS, MSN, Google
insurance: Progressive, Zurich
law firms: expert witness list available upon request
marketing analytics: LiftLab, LivePerson
public sector: US Navy Recruiting Command
retailing: Ralphs, Wickes, Gelson's, Build-a-Bear, Albertsons
technology: Hewlett Packard, Hughes, Xerox, Dell, Microsoft, CDW, Motorola, Intel
telecommunications: British Columbia Telecom, British Telecom, General Telephone

Honors and Awards

2016 Wroe Alderson Award, Wharton School, University of Pennsylvania
2015 Buck Weaver Award for Lifetime Contribution to Marketing Theory & Practice, ISMS
2013 V. Mahajan Award for Career Contributions to Marketing Strategy Research, AMA
2010 Fellow, INFORMS Society for Marketing Science
2010 MSI/H. Paul Root Best Paper Award, *Journal of Marketing*
2007 Gilbert A. Churchill Lifetime Achievement Award, AMA
2007 William O'Dell Best Paper Award, *Journal of Marketing Research*
2006 Robert D. Buzzell Best Paper Award, *Marketing Science Institute*
2003 Neidorf "Decade" Teaching Award, UCLA Anderson School of Management
2003 Teaching Excellence Award, UCLA Executive MBA Program
2002 Frank M. Bass Outstanding Dissertation Award, *Marketing Science*
2001 John D.C. Little Best Paper Award, *Marketing Science*
2001 European Marketing Academy Best Paper Award
1999 Paul E. Green Best Paper Award, *Journal of Marketing Research*
1997 Teaching Excellence Award, UCLA Executive MBA Program
1995 John D.C. Little Best Paper Award, *Marketing Science*
1996 EMAC Doctoral Consortium Faculty Member
1990 AMA Doctoral Consortium Faculty member, 1990-present
1988 Teaching Excellence Award, UCLA Executive MBA Program
1983 Outstanding Reviewer Award, *Marketing Science*
1981 George Robbins Distinguished Teaching Award, UCLA School of Management
1981 Career Development Award, UCLA
1977 Member Beta Gamma Sigma (National Business Honor Society), 1977-present
1977 Purdue University representative, Albert Haring Annual Symposium
1976 Fellow, C.I.M., Brussels, Belgium (doctoral dissertation fellowship)
1975 Outstanding Teacher's Award, Purdue University

Media

Various interviews on management topics for Wall Street Journal, New York Times, Los Angeles Times, Fortune, Los Angeles Business Journal, ABC World News, NPR and other media.

Revised, January 2021

Dominique M. Hanssens, Ph.D.
Distinguished Research Professor of Marketing
UCLA Anderson School of Management

March 2021

TESTIMONY HISTORY IN LAST FOUR YEARS

1. Epic Games Inc. v. Apple, Inc., United States District Court, Northern District of California. Deposition taken on March 25, 2021.
2. J. Song and S. Wertkin v. Champion Petfoods, United States District Court, District of Minnesota. Deposition taken on December 16, 2020.
3. J. Koenig v. Vizio, Inc., Superior Court of the State of California, County of Los Angeles. Deposition taken on June 23, 2020.
4. Miller and Paulson v. Peter Thomas Roth, United States District Court, Northern District of California. Deposition taken on April 15, 2020.
5. MGA Entertainment, Inc. vs. Zuru, LLC, Superior Court of the State of California, County of Los Angeles. Testimony at preliminary injunction hearing given on March 6, 2020.
6. Sirius XM Radio Inc., U.S. Copyright Royalty Board, Washington, D.C. Depositions taken on February 11 and July 2, 2020. Trial testimony given on August 26, 2020.
7. Blackberry v. Facebook et al., United States District Court, Central District of California. Deposition taken on December 21, 2019.
8. G. Woolley et al. v. Ygrene Energy Fund, United States District Court, Northern District of California. Deposition taken on September 26, 2019.
9. S. Weaver v. Champion Petfoods, United States District Court, Eastern District of Wisconsin. Deposition taken on September 18, 2019.
10. D. Krommenhock and S. Hadley v. Post Foods LLC, United States District Court, Northern District of California. Deposition taken on July 11, 2019.
11. J. Beaty and J. Beaty v. Ford Motor Company, United States District Court, Western District of Washington. Deposition taken on June 6, 2019.
12. J. Reitman and C. Shoaff v. Champion Petfoods, United States District Court, Central District of California, Western Division. Deposition taken on May 22, 2019.
13. Obagi Cosmeceuticals v. ZO Skin Health, Judicial Arbitration and Mediation Services. Deposition taken on April 25, 2019. Trial testimony given on May 17, 2019.

14. Liqwd, Inc. and Olaplex, LLP v. L'Oreal USA, Inc. et al., United States District Court, District of Delaware. Deposition taken on March 4, 2019.
15. Merck & Co. Inc. and Merck Sharp & Dohme Corp. v. Merck KGaA, United States District Court, District of New Jersey. Depositions taken on February 14 and 15, 2019.
16. Kellie Loeb v. Champion Petfoods, United States District Court, Eastern District of Wisconsin. Deposition taken on February 6, 2019.
17. Ryan Porter and Haarin Kwon v. NBTY Inc., United States District Court, Northern District of Illinois, Eastern Division. Deposition taken on November 29, 2018.
18. Chrysler-Dodge-Jeep Ecodiesel Marketing, Sales Practices, and Products Liability, United States District Court, Northern District of California. Deposition taken on August 17, 2018.
19. General Motors LLC Ignition Switch Litigation, United States District Court, Southern District of New York. Deposition taken on April 30, 2018.
20. The Coca-Cola Company v. Commissioner of Internal Revenue, United States Tax Court. Deposition taken on November 16, 2017. Trial testimony given on April 12, 2018.
21. Swiftair, LLC v. Southwest Airlines, Superior Court of the State of California. Deposition taken on September 6, 2017.
22. Lions Gate Entertainment v. TD Ameritrade and Havas Worldwide New York, United States District Court, Central District of California. Deposition taken on June 15, 2017.
23. Kobe Falco et al. v. Nissan North America, Inc., United States District Court, Central District of California. Deposition taken on May 31, 2017.
24. Brandy Varner et al. v. Dometic Corporation, United States District Court, Southern District of Florida. Deposition taken on May 18, 2017.
25. Leah Segedie et al. v. The Hain Celestial Group, Inc., United States District Court, Southern District of New York. Deposition taken on May 16, 2017.
26. The People of the State of California v. General Motors LLC, Superior Court of the State of California. Deposition taken on May 2, 2017.
27. Bahamas Surgery Center v. Kimberly-Clark Corp. and Halyard Health, Inc., United States District Court, Central District of California. Trial testimony given on April 5, 2017.

Documents Relied Upon

Academic Articles

- Allenby, G., J. Brazell, J. Howell, and P. Rossi (2013), “Using Conjoint Analysis to Determine the Market Value of Product Features,” *Proceedings of the Sawtooth Software Conference*, 341–355.
- Allenby, G., J. Brazell, J. Howell, and P. Rossi (2014), “Economic Valuation of Product Features,” *Quantitative Marketing and Economics*, 12, 4, 421–456.
- Allenby, G., J. Brazell, J. Howell, and P. Rossi (2014), “Valuation of Patented Product Features,” *Journal of Law and Economics*, 57, 3, 629–663.
- Anderson, N. H. (1965), “Averaging Versus Adding as a Stimulus-Combination Rule in Impression Formation,” *Journal of Experimental Psychology*, 70, 4, 394–400.
- Baumeister, R. F., E. Bratslavsky, C. Finkenauer, and K. D. Vohs, (2001), “Bad Is Stronger Than Good,” *Review of General Psychology*, 5, 4, 323–370.
- Ben-Akiva, M., D. McFadden, and K. Train (2019), “Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-Based Conjoint Analysis,” *Foundations and Trends in Econometrics*, 10, 1–2, 1–144.
- Carson, R. T., J. D. Louviere, D. A. Anderson, P. Arabie, D. S. Bunch, D. A. Hensher, R. M. Johnson, W. F. Kuhfeld, D. Steinberg, J. Swait, H. Timmermans, and J. B. Wiley (1994), “Experimental Analysis of Choice,” *Marketing Letters*, 5, 4, 351–368.
- Cattin, P. and D. R. Wittink (1982), “Commercial Use of Conjoint Analysis: A Survey,” *Journal of Marketing*, 46, 3, 44–53.
- Huber, J. (1997), “What We Have Learned from 20 Years of Conjoint Research: When to Use Self-Explicated, Graded Pairs, Full Profiles or Choice Experiments,” *Sawtooth Software Research Paper Series*, 1–15.
- Kahneman, D. and A. Tversky (1979), “Prospect Theory: An Analysis of Decision Under Risk,” *Econometrica*, 47, 2, 263–292.
- Macdonald, E. K. and B. M. Sharp (2000), “Brand Awareness Effects on Consumer Decision Making for a Common, Repeat Purchase Product: A Replication,” *Journal of Business Research*, 48, 5–15.
- Skowronski, J. J. and D. E. Carlston (1989), “Negativity and Extremity Biases in Impression Formation: A Review of Explanations,” *Psychological Bulletin*, 105, 1, 131–142.

Books and Book Chapters

- Allen, M. A., R. E. Hall, and V. A. Lazear (2011), “Reference Guide on Estimation of Economic Damages,” in *Reference Manual on Scientific Evidence*, Washington, D. C.: The National Academies Press, 425–502.
- Allenby, G., N. Hardt, and P. Rossi (2019), “Economic Foundations of Conjoint Analysis,” in *Handbook of the Economics of Marketing*, Vol. 1, J.-P. H. Dubé and P. E. Rossi, eds. Oxford, UK: North-Holland, 151–192.
- Diamond, S. S. (2011), “Reference Guide on Survey Research,” in *Reference Manual on Scientific Evidence*, Washington, D. C.: The National Academies Press, 359–423.
- Goolsbee, A., S. Levitt, and C. Syverson (2016), “Supply and Demand,” in *Microeconomics*, New York, NY: Worth Publishers, 11–51.
- Kotler, P., and K. L. Keller (2016), *Marketing Management*, Essex, England: Pearson Education Limited.
- Krosnick, J. A., and S. Presser (2010), “Question and Questionnaire Design,” in *Handbook of Survey Research*, J. D. Wright and P. V. Marsden, eds., West Yorkshire, England: Emerald Group Publishing Limited, 263–313.
- Mankiw, N. G. (2008), “The Market Forces of Supply and Demand,” in *Principles of Microeconomics*, Mason, OH: South-Western Cengage Learning, 65–88.
- Mas-Colell, A., M. D. Whinston, and J. R. Green (1995), “Competitive Markets,” in *Microeconomic Theory*, New York, NY: Oxford University Press, 311–343.
- Nicholson, W. (1998), *Microeconomic Theory: Basic Principles and Extensions*, Orlando, FL: The Dryden Press.
- Orme, B. K. (2014), *Getting Started with Conjoint Analysis: Strategies for Product Design and Pricing Research*, Manhattan Beach, CA: Research Publishers LLC.
- Peter, J. P. and J. C. Olson (2010), “Affect and Cognition and Marketing Strategy,” in *Consumer Behavior and Marketing Strategy*, New York, NY: McGraw-Hill/Irwin, 36–65.
- Pindyck, R. S., and D. L. Rubinfeld (2009), *Microeconomics*, Upper Saddle River, NJ: Pearson Education, Inc.
- Rao, V. R. (2014), *Applied Conjoint Analysis*, New York, NY: Springer.
- Varian, H. R. (1992), “Competitive Markets,” in *Microeconomic Analysis*, New York, NY: W. W. Norton & Company, Inc., 215–232.

Depositions

- Deposition of Sean P. Callan, Ph. D, May 9, 2019.
- Deposition of Jeff Johnston, June 24, 2020.
- Deposition of Jennifer Song, August 25, 2020.
- Deposition of Scott Wertkin, August 31, 2020.
- Deposition of Tracy Knierim, October 7, 2020.
- Deposition of Cheryl Wellnitz, October 14, 2020.
- Deposition of Ramy Shaker, October 21, 2020.
- Deposition of Lisa Barta, October 22, 2020.
- Deposition of Kathleen Paradowski, October 28, 2020.
- Deposition of Joan Meyer, November 13, 2020.
- Deposition of Afshin Zarinebaf, November 23, 2020.
- Deposition of Bruce Silverman, November 24, 2020.
- Deposition of Stefan Boedeker (Rough Transcript), December 2, 2020.
- Deposition of Zachary Chernik, December 8, 2020.
- Deposition of Stefan Boedeker, March 16, 2021.
- Deposition of Bruce Silverman, March 17, 2021.

Expert Reports

- Expert Report of Stefan Boedeker in Support of Plaintiff's Motion for Class Certification, *Kellie Loeb et al., v. Champion Petfoods USA Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 18-494, November 16, 2018, and backup materials.
- Expert Report of Stefan Boedeker, *Jennifer Song et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, District of Minnesota, Case No. 18-cv-03205-PJS-KMM, November 2, 2020, and backup materials.
- Expert Report of Stefan Boedeker, *Ramy Shaker et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Michigan, Case No. 2:18-cv-13603-LJM-DRG, February 24, 2021, and backup materials.
- Expert Report of Stefan Boedeker, *Rachel Colangelo et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of New York, Case No. 6:18-CV-01228-LEK-DEP, February 24, 2021, and backup materials.

- Expert Report of Stefan Boedeker, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 1:18-cv-06951, February 24, 2021, and backup materials.
- Expert Report of Dr. Robert H. Poppenga, DVM, PhD, DABVT, *Ramy Shaker et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Michigan, Case No. 2:18-cv-13603-LJM-DRG, February 19, 2021.
- Expert Report of Dr. Robert H. Poppenga, DVM, PhD, DABVT, *Rachel Colangelo et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of New York, Case No. 6:18-cv-01228-LEK-DEP, February 19, 2021.
- Expert Report of Dr. Robert H. Poppenga, DVM, PhD, DABVT, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 18-cv-06951, February 19, 2021.
- Expert Report of Bruce G. Silverman, *Jennifer Song et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, District of Minnesota, Case No. 18-cv-03205-PJS-KMM, November 2, 2020.
- Expert Report of Bruce G. Silverman, *Ramy Shaker et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Michigan, Case No. 2:18-cv-13603-LJM-DRG, February 24, 2021.
- Expert Report of Bruce G. Silverman, *Rachel Colangelo et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of New York, Case No. 6:18-CV-01228-LEK-DEP, February 24, 2021.
- Expert Report of Bruce G. Silverman, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 1:18-cv-06951, February 24, 2021.

Legal Documents

- Declaration of Christopher Milam, *Kellie Loeb et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 2:18-cv-00494-JPS, December 7, 2018.
- Declaration of Christopher Milam, *Scott Weaver et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Wisconsin, Case No. 2:18-cv-1996-JPS, March 3, 2020.
- Second Amended Class Action Complaint, *Ramy Shaker et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Eastern District of Michigan, Case No. 2:18-cv-13603-LJM-DRG, March 20, 2020.

- Second Amended Class Action Complaint, *Rachel Colangelo et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of New York, Case No. 6:18-CV-01228-LEK-DEP, April 24, 2020.
- Third Amended Class Action Complaint, *Afshin Zarinebaf et al., v. Champion Petfoods USA, Inc. et al.*, United States District Court, Northern District of Illinois, Eastern Division, Case No. 1:18-cv-06951, June 17, 2020.

Websites

- “Meadowland,” *Acana*, https://acana.com/en_US/for-dogs-1/meadowland/ds-acameadowlands-dog.html.
- “Lamb & Apple Recipe,” *Acana*, <https://acana.com/en-US/for-dogs-1/lamb-and-apple-recipe/ds-acasingles-lamb-apple-2020.html>.
- “Free-Run Poultry Formula,” *Acana*, <https://acana.com/en-US/for-dogs-1/free-run-poultry-formula/ds-acafree-run-poultry.html>.
- “Duck & Pear Recipe,” *Acana*, <https://acana.com/en-US/for-dogs-1/duck-and-pear-recipe/ds-acasingles-duck-pear-2020.html>.
- “Six Fish,” *Orijen*, <https://orijen.ca/en-US/for-dogs-2/six-fish/ds-ori-six-fish-dog.html>.
- “Acana vs. Pedigree,” *PawDiet.com*, <https://www.pawdiet.com/compare/acana-vs-pedigree-pet-food-brand-comparison/>.
- “Buying & Choosing Pet Food is Priority, petMD Survey Finds,” *PetMD*, <https://www.petmd.com/dog/nutrition/buying-choosing-pet-food-priority-petmd-survey-finds>.
- “Cheap Vs. Expensive Running Shoes: Does It Matter,” *Podium Runner*, February 19, 2018, <https://www.podiumrunner.com/gear/cheap-vs-expensive-shoes-matter/>.
- “Dry Dog Food,” *Petco*, <https://www.petco.com/shop/en/petcostore/category/dog/dog-food/dry-dog-food>.
- “How to Choose the Best Pet Food for Puppies,” *VetStreet*, March 11, 2014, <http://www.vetstreet.com/drmarty-becker/how-to-choose-the-best-pet-food-for-puppies>.
- “Nike ZoomX Vaporfly NEXT%,” *Nike*, <https://www.nike.com/t/zoomx-vaporfly-next-running-shoe-4Q5jfG/AO4568-800>.
- “Orijen vs. Pedigree,” *PawDiet.com*, <https://www.pawdiet.com/compare/orijen-vs-pedigree-pet-food-brand-comparison/>.
- “Our Brands,” *Champion Petfoods*, <https://championpetfoods.com/our-brands.html>.

- “Rachel Ray Nutrish Just 6 Natural Grain-Free Turkey Meal & Pea Limited Ingredient Diet Dry Dog Food,” *Chewy*, <https://www.chewy.com/rachael-ray-nutrish-just-6-natural/dp/170595>.
- “What Every Pet Owner Should Know about Food Allergies,” *Clinical Nutrition Service at Cummings School*, January 27, 2017, <http://vetnutrition.tufts.edu/2017/01/food-allergies/>.
- “Why You Should Tailor Your Dog’s Food to Their Age and Breed,” *The Telegraph*, December 15, 2017, <https://www.telegraph.co.uk/pets/family-animals/choose-the-right-food-for-your-dog/>.

Bates Stamped Documents

- CFP1766183.xlsx
- CPF0145434–5538